



**MAHANAGAR TELEPHONE (MAURITIUS) LTD.**

(A subsidiary of MTNL - A Govt. of India Enterprise)

RFP No. MTML/RFP/LTE/2021/1

Dated: 19<sup>th</sup> Feb 2021

**To,**

**The Prospective Bidder.**

Dear Sir / Madam,

**Subject: Clarifications in respect of RFP No. MTML/RFP/LTE/2021/1 dated 27<sup>th</sup> Jan 2021**

In accordance with the clause 6, Section II of the subject RFP document, Clarifications sought by different vendors on commercial and technical specifications have been examined by this office and necessary clarifications / amendments are being attached herewith as Annexure-I for reference to all prospective bidders.

These clarifications supersede the relevant terms and conditions of RFP in case of any contradiction. While preparing the bid these clarifications should be taken into account and complied with.

Duly signed and completed hard copies of the bid documents must reach MTML's office in Mauritius before closing date, i.e, 10<sup>th</sup> Mar 2021, upto 14 Hrs.

The soft copies of Technical Bid Documents with unpriced BoQ can be sent to [mtml@mtmltd.net](mailto:mtml@mtmltd.net). This soft copy is only for MTML evaluation purpose and will not be considered as bid document in lieu of hard copy. In case of any discrepancy, the content of hard copy shall be treated as final. Kindly note the Financial Bid must not be sent by mail.

The bids without BID Security /Transfer Receipts and the BID fees will be solely rejected.

All the other terms and conditions of the subject RFP remain unchanged.

sd/-

**(Alok Agrawal)**  
**CEO, MTML**

Enclosure: Annexure-I

## Annexure -1

### Clarifications for RFP No: MTML/RFP/LTE/2021/1 dated 27th Jan 2021

S.No	Bidder Queries	MTML Clarifications
1	Will the 100 new sites be provisioned for U900 as well?	No. For the UMTS scope for the new sites includes provisioning of UMTS 2100 ( 2 carriers) only
2	Hardware needs to be 5G ready. Should the bidder to quote for 5G hardware for the 100 new sites?	All the equipment provided should be upgardable to 5G.
3	Deployment of the 100 new GU sites will be done with LTE1800 (1 carrier) only?	Yes. For the LTE scope for the new sites includes provisioning only 1 carrier with 20MHz in 1800 band by default.
4	The 2100Mhz in RAN-3 will need refarming of U2100 on sites and neighbour site before deployment?	Yes. For the LTE scope for the new sites includes provisioning only 1 carrier with 20MHz in 1800 band. MTML may also include new sites for CA as per RAN-3 project requirement.
5	Order of the project deloyment: Probably better to do RAN2 and RAN3 before RAN1. Existing site vs planned site that are still not identified will take less time to do.	Noted. The ordering shall be as per MTML requirement.
6	Do the bidder have to quote for optimization?	The optimisation is part of the RFP scope, which includes Network Planning & RF Survey, Installation, testing, commissioning & optimisation.
7	Do the bidder need to offer warehousing during deployment?	As per RFP, the vendor will make his own arrangement for the storage of the goods at Mauritius. He will transport the goods to the required Site as per the requirement of the turnkey project at his cost including transportation, handling charges etc.
8	Pls provide us the current Microwave and Fibre Topology of MTML to be able to work out the HLD especially the Transmission part.	Please refer the Annexure -2
9	Port requirements have been specified. But is there any specific amount of transceivers that Customer need? Also, the transceiver type (SM,MM) & distance?	Qty. of SFP should be as per the Port requiremnets specified in RFP. The SFP should be preferably SM type, 10KM.

10	The bidding document does not provide the detailed list of sites to be expanded and the longitude and latitude of the sites to be expanded.	Please refer the Annexure -2. The high capacity links 5Gbps/hop shall be to replace the existing backbone links, which are currently provisioned on 4+0 radio. And 1Gbps/hop links shall be planned for replacement of existing access/terminal and also deployment at new sites. Note that new BTS locations are not yet fixed. So the bidder has to plan for microwave hops with certain assumptions accounting for possible changes in the design.
11	Request to change payment terms to EUR	As per RFP, the bid has to be quoted in USD. But MTML can consider to change the payment terms to EUR while issuing the PO at mutually agreed exchange rate.
12	Payment shall be made in EUR as specified in the contract in the following manner: For Equipment Supplies: 100% of the invoice value of goods would be paid on delivery through irrevocable LC.	MTML can consider to change the payment terms to EUR while issuing the PO at mutually agreed exchange rate. But Payment terms shall be as per RFP.
13	For Services: 100% payment of the provided services will be made after successful installation, Acceptance testing and commissioning of the system and issuance of "Taking Over Certificate", either through TT or LC.	Payment terms shall be as per RFP.
14	IS Voice solution is required to support 2G/3G subscribers along with VoLTE and VoWIFI?	Yes
15	IS new vEPC platform be required to support 2/3G subscriber access? Is it needed to migrate all the services from existing network to new platform ?	Yes
16	Is current voice interconnect carriers are connected through TDM SS7?	Yes. The interconnections are working on both - SS7 & Sigtran.
17	For Required Solution Proposal please help to confirm about division of required 400K subscribers in 2G/3G/4G/5G subscribers quantity.	As per RFP, all 400K can be either 2G/3G/4G/5G. So the dimensioning must ensure any type of subscriber traffic.
18	For Clear understanding about expandable quantity of subscribers up to 800K (Current Required hardware quantity is for 800K subs and Current authorize license quantity is 400k subs) (Ratio between Hardware and software requirement)	The proposed core shall be provisioned for 400K as per RFP. It shall be further expandable to 800K (hardware & software) as per MTML requirements in future.
19	For Voice and Packet core network is service migration for 2G/3G/4G subscribers is included as part of scope?	Yes
20	CS and PS current Network Topology	Please refer the Annexure -3

21	MTML is asking for latest cloud based vEPC, IMS VoLTE platform and 5G core ready. a) Can we offer virtual environment based solution? b) Does MTML have existing Virtual Environment?	No. The proposed solution should be as per RFP.
22	The LTE eNodeBs- hardware/ software being provided/upgraded under this project shall be provisioned with VoLTE functionality along with SRVCC feature. – can we just bid for core platform?	The proposed RAN should be provisioned with VoLTE functionality along with SRVCC feature. These features should be provisioned on both RAN & Core.
23	DNS/ENUM server shall be provided. – may we propose OpenSource solution?	The proposed solution should be 3GPP compliant and must meet the RFP requirement.
24	Like VoWifi, ePDG AAA architecture, is not mandatory, please confirm if Self-Organizing Network (SON) – is it mandatory to be included?	The SON feature is mandatory as per RFP. If bidder proposing alternative, the proposed solution should be 3GPP compliant and must meet the RFP requirement.
25	If we bid for core network do we also need to supply desktops for NMS, Firewall, Intrusion Prevention and Detection System & Antivirus	Yes
26	Could we propose an integrated BBU+RRU eNodeB?	Yes. The proposed solution should be 3GPP compliant and must meet the RFP requirement.
27	VoWifi – Is there an existing infrastructure available for same or need to install all new?	The bidder should propose the new setup for VoWiFi.
28	Assuming Billing system is already in place and only need to submit raw CDRs for new sites.	CDR's/CG shall be a part of the Core network equipment, which should be as per RFP requirement.
29	Please provide clarity on page 34 point-16 and page 39 point 41- 5G ready radios. Our understanding is that, the new 5G radio would need to be procured & installed with 5G Core license upgrade on same existing software. Please confirm.	All the equipment provided should be upgradable to 5G.
30	Does all sites have IP mesh network availability? If not available, please share the back connectivity. (need IP backhaul from site (Radio+vEPC))	The transmission backhaul is on all IP.
31	Carrier Aggregation in different bands (LTE 1800, LTE 2100 and LTE 700) would need a different RRU for each band. Does tower have enough space, etc to allow installation on various RRUs?	Yes
32	For Seamless handover between existing 3G/4G sites and new 3G/4G sites would be supported however it would be on different protocol, not using X2 interface.	It should be 3GPP compliant and must meet the RFP requirement.

33	Can the bidder to propose a distributed architecture esp wrt islands geography of Mauritius where some islands have poor back haul?	Distributed architecture is not necessary at this stage. Currently all our existing core network is at centralised location at MTML Ebene data center. The proposed solution should be as per RFP required.
34	In Section 6.3 Microwave (Page 103/243) 1- 6.3.1.7: For bidder to quote the links, we will need coordinates and capacity requirements per link in order to propose a solution.	Please refer the Annexure -2. The high capacity links 5Gbps/hop shall be to replace the existing backbone links, which are currently provisioned on 4+0 radio. And 1Gbps/hop links shall be planned for replacement of existing access/terminal and also deployment at new sites. Note that new BTS locations are not yet fixed. So the bidder has to plan for microwave hops with certain assumptions accounting for possible changes in the design.
35	In Section 6. Delivery & Warehousing (Page 23/243). Please advise on the delivery terms according to Incoterms 2020. This is not mentioned.	The Purchaser shall be responsible for paying all the duties/ levies on equipment & software within Mauritius and the duties/ levies outside Mauritius shall be responsibility of the Vendor. The vendor will make his own arrangement for the storage of the goods at Mauritius. He will transport the goods to the required Site as per the requirement of the turnkey project at his cost. The goods shall remain at the risk of the Contractor until completion of the turnkey project i.e. issuance of 'Taking Over Certificate'. This is as per RFP conditions.
36	In Section 60. Annual Maintenance Contract (Page 43/243). It is not clear for how long should bidder to maintain the same prices. For 1 or 5 years?	As per RFP the bidders shall quote for year wise Annual Maintenance Contract price for a period of upto 5 years. MTML will have the discretion whether to sign the AMC contract or not for each year separately.
37	In Item 15. Sealing and Markings of Offers (Page 15/243). Will MTML accept email submissions?	The soft copies of only technical bid documents with unpriced boQ can be sent to mtml@mtmltd.net. This softcopy is only for MTML evaluation purpose and will not be considered as bid document in lieu of hard copy. In case of any discrepancy, the content of hard copy shall be treated as final. Kindly note that Financial bid must not be sent by mail. All the bid documents must reach physically by the last date mentioned in the RFP.
38	Will MTML provide a Virtual Session via Microsoft Teams or Zoom or other Video Conferencing Application for remote participation by bidders in bid opening?	Yes, MTML will consider and the details shall be shared to the prospective bidders.

39	SPECTRUM :Could you please provide the detailed spectrum range for 900MHz, 1800MHz, 2100MHz and 700/800MHz respectively?	Please refer the Annexure -1
40	Could you please provide the site list and 2G/3G/4G configuration of whole 265 existing sites to us? Such as G9.S444+U9.S111+L18.S111+U21.S222, indoor or outdoor?	Please refer the Annexure -1
41	Could you please to provide the configuration of 3G+4G new sites?	For new sites, For UMTS the scope includes provisioning of UMTS 2100 ( 2 carriers) & for LTE the scope includes provisioning only 1 carrier with 20MHz in 1800 band.
42	Could you please provide the site list and configurationof GU upgrade to LTE?	Please refer the Annexure -1
43	Could you please provide output power requirement per TRX?	As per RFP, for each carrier of UMTS, the proposed RRU should support atleast 40 Watt power to be provided. And for LTE, for each carrier, the proposed RRU should support of atleast 2*40 Watt power needs to be provided.The
44	Is there is an existing Security GW in live bearer network ?	There is no existing Security GW. The bidder should provision the new Security GW as per the RFP requirement.
45	Is the security ZONE solution should be provided in CORE scope,such as DMZ solution ?	Yes, as per RFP requirement.
46	Could help to clarify the exact requirement to CORE supplier? The T-PE routers are normally excluded in the CORE scope.	It is part of CORE and should be provisioned as per RFP.
47	Could help to clarify what is "TAX"?	Transit Automatic Exchange. For MTML network, GMSC acts as TAX in the existing topology.
48	6.4.8 Core Network- Packet Switched - Does it mean the proposed PS solution should support the POOL or geo-redudancy in another words?	As per RFP, The proposed solution shall be provisioned in POOL.
49	6.4 Core Network Upgrade- Does it mean the proposed solution to include vCS?	Yes
50	Is the USSD solution should be provided in CORE scope, we suggest that it be provided on the IN / OCS scope.	As per RFP, the packet core should support USSD. USSD platform is not in the scope of this RFP.
51	6.4.16 IM-SSF-: Is the SEE solution should be provided in CORE scope, we suggest that it be provided on the IN / OCS scope.	As per RFP, the packet core should support SEE . But SEE platform is not in the scope of this RFP.

52	SECTION - III GENERAL CONDITIONS OF CONTRACT 5.Factory Inspection and Acceptance Tests : What is the satisfactory standard? Please provide detailed TOC standards.	As per RFP, upon succesful completion of Acceptance testing, "Taking Over Certificate" (ToC) shall be issued. Please refer Section III, Clause 5.4 for details.
53	SECTION –IV (B) DETAILED TECHNICAL REQUIREMENTS 6.1.6 Network Planning&Optimization: Please provide process for optimization acceptance. 2.Please provide KPI requirement for acceptance.	As per RFP requirement
54	SECTION –IV (B) DETAILED TECHNICAL REQUIREMENTS 6.1.6 Network Planning&Optimization: Does MTML need Refarming?	Yes
55	SECTION –IV (B) DETAILED TECHNICAL REQUIREMENTS 6.1.6 Network Planning&Optimization ;Does MTML need to enable VoLTE?	Yes
56	SECTION –IV (B) DETAILED TECHNICAL REQUIREMENTS 6.1.6 Network Planning&Optimization: Will MTML adopt single station acceptance or cluster acceptance? Who provides the antenna? If the customer provides the antenna, who is responsible for the KPI problems caused by the antenna?	The acceptance shall be done for each individual site. Antenna also shall be part of the project scope. Please refer Section VII, Price Schedule for detailed requirement.
57	SECTION - III GENERAL CONDITIONS OF CONTRACT 7.1. Training: Where is the training location? How many trainees are there in each course?	Please refer RFP section III, clause 7

58	<p>SECTION –IV (B) DETAILED TECHNICAL REQUIREMENTS 6.3 Microwave Requirements</p> <p>Microwave Requirements, there are two items to make clear the requirement for microwave availability such as Item 7 of 6.3.1. General Requirement and Item D of 6.3.2. Performance Requirements. We think this is the requirement for the link availability of the traditional microwave frequency. But this time MTML has the requirement for microwave e-band. It is obvious that availability of traditional microwave frequency is not suitable for microwave e-band. Please kindly provide the link availability of microwave e-band .</p>	<p>As per RFP, The radios should be able to operate in the Microwave Frequency Bands of 6GHz to 42GHz with the ability to combine the Microwave Band with 80GHz Band (E-Band).</p>
59	<p>SECTION-1 GLOBAL NOTICE INVITING TENDER 3. SCOPE:</p> <p>As vendor understanding, site acquisition, any permit application, site infrastructure work (such as civil, tower,AC power,grounding system, antenna pole, tower/rooftop load analyze and reinforcement ,etc shall be under customer`s responsibility. Vendor will be responsible for the planning, survey,instalaltion, commission,warranty-&amp; technical support, drive test and optimization. please confirm</p>	<p>For the new sites, MTML shall take care of the site acquisition, permits &amp; site infrastructure works.</p>
60	<p>SECTION –IV (A) SPECIAL CONDITIONS OF CONTRACT</p> <p>Becasue the site deployment always depend on site acquisition and site infrastructure preparing progress, so What is expected project implementation duration foreach sub project(RAN, MW part ) ?</p>	<p>As per RFP, the ordering of equipments shall be in batches depending upon progress of new site acquisition and requirement for upgradation of existing hops/sites. For RAN-1 &amp; MW, the expected timeline is around 1~2 year, subjected to the progress of the site acquisition and permit.</p>
61	<p>SECTION - III GENERAL CONDITIONS OF CONTRACT: we cann't provide warehousing service in Mauritius,is it possible to change to buyer's?</p>	<p>No. Warehousing is the responsibility of the bidder as per RFP.</p>
62	<p>SECTION –IV (A) SPECIAL CONDITIONS OF CONTRACT</p> <p>57. Operation and Maintenance: There is no price item in BOQ for this mentioned first 3 months service after commercial launch, should we add price item in BOQ accordingly?</p>	<p>The mentioned period covers under the warranty period.</p>



63	<p>Annexure-V ANNUAL MAINTENANCE CONTRACT (AMC) SCOPE OF CONTRACT: As we know in general and consensus, AMC is a 3rd level service from OEM, but in RFP, it seems like AMC is a network managed service which vendor to provide 1st&amp;2nd&amp;3rd level service, please kindly confirm your requirements regarding AMC.</p>	<p>AMC scope doesn't include managed services. Level-1 maintenance shall be done by purchaser and Level-2&amp;3 shall be done by the bidder.</p>
64	<p>SECTION –IV (A) SPECIAL CONDITIONS OF CONTRACT 57.SOFTWARE Operation and Maintenance:As can see from RFP, you are request 6 months software support, but for Operation and Maintenance is for 3 months, please kindly align with both service period so can be matched.</p>	<p>As per RFP,Successful bidder should submit an undertaking to make necessary arrangements in Mauritius for Software Support in Mauritius within Six months of award of contract to ensure smooth functioning of equipment supplied and to meet additional requirements from time to time free of charge. The bidders shall submit details of location, number of personnel, facility to be made available for Software Support Centre in the bid. No remote access to foreign country shall be allowed except for catastrophic failures</p>
65	<p>Section V A. SCHEDULE OF REQUIREMENTS - For RAN-1: 1.do you mean spares for five years AMC period shall be quoted here? 2.where to quote for spares during warranty period? there is no item in BOQ.</p>	<p>Both for the warranty &amp; AMC period, the spares shall be supplied and managed by the bidder. Please refer RFP Section III, Clause 9 for details.</p>
66	<p>SECTION –IV (A) SPECIAL CONDITIONS OF CONTRACT Annual Maintenance Contract: penalty limitation is 15% of service value, but since the service during warranty is free of cost, then how can penalty clauses applicable to free service?</p>	<p>As per RFP</p>
67	<p>Request to relax few eligibility criteria</p>	<p>Eligibility criteria shall be as per RFP</p>
68	<p>The RAN-1 portion of tender where you are planning to add 100 additional sites includes the requirement of 3G in addition to 4G. For the RAN portion we have to bid for RAN-1,2,3. We are only able to provide a 4G only solution (no support for 2G or 3G) i.e. RAN-1 sub-portion. Are we able to bid for this sub-portion only?</p>	<p>For RAN, the bidder has to bid for all the 3 sub-projects as mandatory.</p>

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Special Condition 37 stated “It is proposed to have all IP microwave.....” yet section 6.3.4 states “The radio equipment shall support E1.....” can we quote radios that do not have E1 considering this will be an all IP solution. For E1, we could provide smart SFPs (That support channelized STM-1) but this will require MTML to have a Mux on site where E1s are required

The requirement is for all IP microwave. But the proposed hardware should also be capable to support E1 for TDM interconnections if required.

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