

Republic of the Union of Myanmar

Telecommunications Sector Reform Project

SPECTRUM MONITORING SYSTEM

Credit No. 5353-MM.

Questions & Answers

Tender Title: Procurement of Spectrum Monitoring System (SMS)

ICB Number: G1.3.1

Updated 7-4-2016

| Sr. No. | Page No. | Ref Clause | Description in RFP | Question | Answer | Batch |
|---------|----------|------------|---|--|---|-------|
| 1 | 4 | 3.4 | ... to be able to control the spectrum monitoring network from the FMS Type I location. | What does "control the spectrum monitoring network" mean? Are we correct in assuming that operators can configure network between FMS and MCC, and change network settings from the FMS Type I location? | Means the workstation in FMS type I shall be able to remote control the FMS Type I and II and MMS Type A and B and TMS stations assuming a communication link is available. | 1 |
| 2 | 4 | 3.9 | The three (3) Mobile Monitoring Stations PTD had purchased in 2014, ... | MCC, FMS Type I, MMS and TMS need to be able to control MMS PTD had purchased in 2014? | If possible, PTD wants to establish a SMS that works smoothly, efficiently and can connect to existing 3 MMS. However, this is <u>NOT</u> mandatory. | 1 |
| 3 | 15 | ITB 11 | Documents Comprising the Bid | Please clarify that Documents Comprising the Bid should be the List in the attached List No.1~16? And for No,1~3, 9~16, Documents Format is Free ? | Please follow instructions in the Bidding Documents. | 1 |

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| 4 | 33 | ITB 2.1 | Loan or Financing Agreement amt : 31.5 m | Understood that 31.5m is for the whole Myanmar Telecom Sector Reform and what is the estimated project budget for SMS alone? | Approximately 7.5 million USD inclusive of all taxes. | 1 |
| 5 | 34 | ITB 14.5 | PTD would provide support in the process with sites belonging to other ministries, Post Office, etc. along with the municipal development corporations of Mdy and Ygn | Will PTD provide support also if the acquired site building is the private own? Suggestion : PTD should involve site acquisition process, negotiation for the monthly/yearly rental payment and contracting with the landlord as supplier assumed that site rental is under purchaser's scope | PTD will provide nominal locations for fixed stations, and suppliers are requested to do Site evaluation such as: survey, testing, design. The supplier will then propose to PTD for final negotiation with land owner. After that PTD will provide support and will be engaged in all negotiation related to site acquisition, rental, lease, etc as required. | 1 |
| 6 | 34 | ITB 14.5 | PTD would provide support in the process with sites belonging to other ministries, Post Office, etc. along with the municipal development corporations of Mdy and Ygn | is my understanding correct that PTD give support means that PTD will negotiate with site owner and make a lease or purchase the site acquisition? | Please refer to question no.5 | 1 |
| 7 | 35 | ITB 14.6 | Price quoted for each component shall correspond at least to 100% of the items specified for each component Prices quoted for each item of a Component shall correspond at least to 100% of the quantities specified for this item of a Component | Please clarify a bit more on " correspond at least to 100% of the items and 100% of the quantities specified? | All items/components required in the "price and completion schedules" should be quoted. | 1 |
| 8 | 35 | ITB 16.4 | Spare management for 5 years | Please clarify Spare Management is under same budget of the Procurement of SMS or separated budget that potential vendor can propose with separated proposal? | Under same budget | 1 |
| 9 | 40 | ITB 39.1 | The maximum percentage by which quantities may be increased is : 20% of the items quoted in each Component The maximum percentage by which quantities may be decreased is : 20% of the items quoted in each Component | Please clarify a bit more on "maximum percentage by which quantities may be increased/decreased is 20% ? | The Purchaser may lower the number of MMS and or TMS if budget is insufficient to cover the whole requirements. This is related to Award of Contract. After announcement and negotiation of contract, the quantities might be adjusted increase/decrease 20% depending on conditions at that time. | 1 |

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| 10 | 43 | 3.1 (a) | To meet this criteria, the Bidder must demonstrate that the proposed systems have been in satisfactory service with at least three (3) telecommunications organizations for a minimum period of three (3) years on the date of bid opening and the value of such contracts are greater than 50% of the value of the Bid. | the value of such contracts are greater than 50% of the value of the Bid. It means that Bidder should have experience to install the system whose price should be over 50 % of the price of the bidding price? | It means that the supplier should have executed contracts at least three (3) times to provide similar systems to the ones offered in his bid and that each contract has a value of at least 50% of the total bid price. | 1 |
| 11 | 37 | ITB 17.2 (b) | ITB 18.1 The bid validity period shall be 180 days. | it means that October 26 would be the bid validity date which calculates as after 180 days from bidding due date 'April 26'? | Bids validity should be till October 23, 2016 | 1 |
| 12 | 42 | 3.1 | 3.1 Post-qualification Requirements After determining the lowest-evaluated bid... | What is the definition of " lowest-evaluated bid " in this document? "lowest-evaluated bid" means the lowest bidding price provided by the Bidder? | Lowest Bid that is Technically and Commercially Responsive and complies to requirements. | 1 |
| 13 | 119 | 3.1.1 | ...established from any one of the FMS Type I, the MMS and from any of the workstations at the MCC as well as from the transportable monitoring stations (TMS) assuming a communication link is available. | Should MMS and TMS operate FMS? | YES | 1 |
| 14 | 119 | 3.1.2 | ..., or any other monitoring fixed, mobile or portable site assuming a communication link is available. | Should MMS and TMS operate other MMS? | YES | 1 |

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| 15 | 119 | 3.1.2 | The Purchaser shall supply the communication link, ... | What is "the communication link"? Could you inform us in details? | Suppliers are required to provide equipment and components for communication link such as: modem, wifi,...and setup, test (if needed) communication link. Purchaser will pay for fee of communication services such as 3G or ADSL... Data communication links could be and not limited to: 1- PSTN lines 2- Microwave Radio Link 3- DSL 4- Fiber Optic 5- Dedicated Land Lines 6- VPN over LTE/3G 7- etc | 1 |
| 16 | 119 162 | 3.1.2 40122 | ... with a two (2) VHF/UHF handheld transceivers ... ----- Multi-channel frequency programmable handheld. | Does "Multi-channel frequency programmable handheld" from page 162 mean "VHF/UHF handheld transceivers"? | YES | 1 |
| 17 | 121 | 3.1.4 | The WAN interfaces should support Ethernet 802.3, DSL broadband, and microwave network links. | Is microwave network links is required or optional? | The Purchaser is responsible to provide the WAN data links. (refer to question 15) Suppliers should provide the information on the required data link to operate their proposed system | 1 |
| 18 | 121 | 3.1.4 | Direction Finding and Triangulation using Single Station Location techniques over digital maps. | Single Station Location techniques are used for HF, but we assume HF antenna cannot conduct direction finding 20MHz - 3000MHz. Should HF antenna be able to use Single Station Location in 20 MHz - 3000MHz? | This feature applies to the TMS and the MMS monitoring stations. The operator should be capable of using 1 monitoring station to perform triangulation over digital maps. | 1 |
| 19 | 127 | 3.2.1 | Multi-Channel Measurements | What does "Multi-Channel Measurements" mean? Does it mean that one sensor can conduct several measurements of several different frequencies simultaneously? | It means that the Operator can send a list of channels to the sensor and request different measurement types to be done, the results will be sent back to the operator. | 1 |

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| 20 | 128 | 3.2.1 | Automatic violation detection | What does "Automatic violation detection" mean? Radio monitoring system allows operators to set the location of a legal station before measurement starts, and if sensor receives the radio wave which have the same specification of the legal station from different location operators set in advance, the system displays alert message. Can we regard this function above as "Automatic violation detection"? | This function will help to verify automatically the licensed emitters or unlicensed emitters operation. The data base will be set or defined the limits of the expected measurements or load from Spectrum management. if a measurement is outside the pre-defined limits it will generate alarms or reports to the management team. | 1 |
| 21 | 151 154 157 | 20214 30114 30214 | 50 meter ground mounted tower 75 meter ground mounted tower 100 meter ground mounted tower | Although page 34 ITB 14.5 tells "A list of potential fixed sites will be provided from PTD", is the bidder required to build towers and prepare for the land to make constructions? Should the bidder buy the land or pay for the rent of the land? | Land will be provided by the Purchaser. Suppliers should provide the price to build the towers, fences, equipment shelters, soil test, etc. as requested in the bidding document. | 1 |
| 22 | 103 | 20104/20 105 | | Typically UHF/SHF signals are not strong in its emmissions. Hence an active antenna is usually recommended at those frequency ranges. Please confirm that the bidder can choose and decide to use active or passive antenna best suited for the operational tasks and benefit of the end user? | The fixed sites are intended to be deployed in congested RF areas where there could be a potential of signal overload, that's the reason why it is desired to have passive antennas. | 1 |
| 23 | 110 | 40104/40 105 | | For Mobile solutions, it is recommended to have small form factor so that the solution can be easily deployable for SUV's to its required operational area. Passive antenna are usually larger in their form factor and some time to bulky for mobile solution. Pls confirm that the bidder can decide on the best possible configuration (passive or active) best suited for the operational tasks and benefit of the end user? | We prefer passive antenna for UHF/SHF, because passive antenna will provide more sensitivities, high gain than other type of antenna and also passive antenna was not effected by interference from intermodulation of high frequency For mobile applications, Active antennas will be accepted | 1 |
| 24 | 122 | | | (DF antenna lighting static dissipation device) Please confirm if the lighting protection shall be ideally be intergrated with the DF antenna such that it does not affect the DF accuracy of the system? | Yes, the lighting must be provided together with the DF antenna and lighting protection to ensure the accuracy of results and system operation. | 1 |

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| 25 | 125 | | | <p>(Direction Finding and Triangulation using Single Station Location techniques over digital map) Our understanding of Single Station Location techniques means to get a location result using a single DF station. At V/UHF frequency range usually the station is a MMS or TMS type and shifts its position relatively to the target. By taking and recording of several bearing and positions of own station the triangulation can be processed and displayed on a digital map. Please confirm if this requirement is required for FSM stations, too or only for MMS and TMS stations?</p> | Please refer to question 18 | 1 |
| 26 | 126 | | | <p>(Measurements should be logged in files together with the instrument settings including: Attenuation,...Noise floor...) Typically noise floor is classify as measurement but here it is listed as instrument settings. Please clarify if the above refers to a reference level instead.</p> | This is correct, it should have been "Reference Level" | 1 |
| 27 | 127 | | | <p>(Listening to a minimum of 2 live audio channels simultaneously using existing IP network) Please confirm if the audio is require to stream from a single remote station or two remote station)</p> | To help identify the interference problems, it is our desire to have the capability to stream 2 live audio signals from each remote monitoring station, the operator can listen to the 2 audio signals on his left and right headphones. If the solution provided by the Supplier, for a particular site, requires one single receiver only then the second audio signal can be streamed from another station. | 1 |
| 28 | | | Misc. question | <p>Pease confim for training and FAT requirement (location, no. of trainees, no. of days)</p> | <p>Please refer to following Line Items: 1301 page 140 1401 page 141 Please note that line item 1302 (Training at other organization of PTD personnel) should be referred to as line Item 1303</p> | 1 |

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| 29 | 42, 43 | Section III | Evaluation and Qualification Criteria 3. | <p>Refer to Section III. Evaluation and Qualification Criteria 3. Qualification (ITB 36), 3.1 Post-qualification requirement (ITB 36.1), (a) (ii) (b) if bidder is not manufacture:</p> <p>We, Global Technology Co., Ltd is authorized by manufacture Rohde&Schwarz Asia Pte Ltd, we may not be main Bidder but we will be main ans sole local partner of R&S. Thus we will take care some of the locally available products, third party products (like Generators, UPS, tower...) and services. How can we provide and participant in this bidding process?</p> | <p>The whole procurement shall be contracted with a single turnkey contractor through the single tendering process. However, Sub-Suppliers or Joint Ventures are welcome.</p> | 1 |
| 30 | 34 | ITB 14.5 | | <p>Refer to Section II. Bid Data Sheet, IBT Clause Reference ITB 14.5 In order to prepare costing and submit price proposal to include in proposal in time regarding site selection, we would like to know start date or schedule of the purchaser PTD support upon final site selection? or we would like to have PTD support upon site location area in advance?</p> | <p>The Purchaser will work closely with the successful Supplier to provide all necessary support(e.g in negotiating with relevant organizations) in the site selection process.</p> | 1 |
| 31 | 132 | | DF sensitivity | <p>Typically ITU recommends measuring the DF sensitivity with the following parameters (1Khz DF bandwidth, 1s intergration time and 2o accuracy as per Report ITU-R SM.2125). The DF sensitivity requested seem to indicate otherwise. Please kindly confirm the parameters used to measure this DF sensitivity.</p> | <p>Refer to DF with more accuracy at 1Hz bandwidth and 1s DF averanging</p> | 1 |

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| 32 | 51 | | Price schedule Forms - Calculation of Column 9 "Total price per line Excluding local tax" | - Calculation for Column 9 is Col 7 - 8 instead of Col 7+8? '- Please specify which taxes to include in "local tax" | It should be Col 7+8 (Inclusive of all local taxes). local taxes are custom duty and import taxes etc...(These kinds of taxes are in DDP stage). But when making payment from PTD to the contractor(winner of the bid) who has been awarded contract also has to pay other local taxes , such as 2% withholding tax for Local companies and 3.5% withholding tax for Foreign companies and 5% commercial tax for both local and foreign companies on the contracted amount.So, the Bidders need to consider inclusive of those taxes in their price schedules when they proposed the bid. See all tax related Myanmar tax laws in the relevant Ministry's website such as Ministry of Planning and Finance website and the link : (www.irdmyanmar.gov.mm/ird/TaxProcedures.aspx) and its home page. | 1 |
| 33 | 55 | | The Section IV Price Schedule contains options, such as item 20103 "DF Antennas for VHF and UHF!Horizontal Polarization (Optional)" | Please confirm that "Total Price", e.g. "Total price Component 20100" is without options? | Confirmed. The Supplier should provide the price of this component | 1 |
| 34 | 35, 36 | IBT 16.4 | Related to Spare parts | - According to ITB 16.4 spare parts for 5 years shall be included in the proposal, but according to Section IV Price Schedule - Service 1700 –Spares, spare for initial three year period is requested. Please clarify - ITB 16.4 mentions Price Schedule 1 and 2 of Section VII for the supply of spare parts. We have not found price Schedule 1 and 2. | a. Spare parts will be required for 5 years b. Price Schedule 1 and 2 refers to the Price schedule of the components and the Price Schedule of the Related Services. Correction will be made the bidding document. | 1 |
| 35 | 34, 200 | ITB 15.5, GCC15.1 | | Tender document mention e.g. in ITB 15.5 and GCC 15.1 that prices shall be fix/ not be adjustable. However some prices will be adjusted, e.g. price for towers. | That is correct. Price is fixed for all items. All suppliers would have to quote a fixed price for the towers according to the specifications set in the tendering document. If required, final adjustment to the towers' price will be made after the site selection task. | 1 |

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| 36 | 42 | 3.1 | | <p>In section III – Evaluation Criteria, you list a selection (a to d) of additional criteria as listed in BDS 34.6, which are all followed by “NO”. Does this mean, that no other criteria besides the bid price will be considered throughout the evaluation process? If not, please specify the additional criteria which apply.</p> | <p>Bids will be evaluated by 3 factors: 1- Compliance to the requirements 2- Price 3- Bidder Qualification Requirements</p> | 1 |
| 37 | 145, | 20100 20200 30100 30200 | | <p>In section VII Schedule of Requirements, the requirements for the masts/towers needed for the FMS are precisely mentioned in the technical requirements, i.e. 20m for FMS 20100, 50m for FMS 20200, 75m for FMS 30100 and 100m for FMS 30200. Normally, the height required for the masts is calculated after selection of the sites and after simulations. Because PTD requires the support of the supplier for the selection of the sites in service item 1801, we are wondering how these heights have been determined if the sites are not known already. Could you please clarify the situation?</p> | <p>The height of towers was estimated by PTD team, the suppliers are required to offer the system suitable with that maximum height of tower as tender requirement. The exactly height will be considered in contract but will not be higher than maximum of estimated. The Purchaser has requested the price of different types of towers to be able to evaluate the bids using the same sets of rules and specifications for the bidders.</p> | 1 |

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| 38 | 123, 124, 125 | | | <p>In section VII Schedule of Requirements, page 123, it is mentioned “determine the location of the transmitter by triangulations or single station location (SSL).” and also in page 124 “DF algorithm to support atmospheric refraction and topography” is marked as “optional”. We understand therefore that the SSL functionality is an optional feature that is not mandatory. But at the same time, the requirement “Direction Finding and Triangulation using Single Station Location techniques over digital maps.” on page 125 is marked « required ». Could you please clarify, whether the SSL feature is mandatory or not and thus if it is acceptable to offer it as an option?</p> | <p>Please refer to Question 18, SSL feature is not optional for triangulation using TMS or MMS stations.</p> | 1 |
| 39 | 133 | 3.2.4 | | <p>In section VII Schedule of Requirements, page 133, §3.2.4, it is required that 2 vehicles should be off-road SUV type 4x4 with manual transmission (type A) and that 1 vehicle should be city SUV type 4x4 with automatic transmission (type B). In order to simplify the life cycle management (maintenance, spare parts!) and also to optimise the costs, is it acceptable to offer one single type of vehicle, i.e. 3 vehicles of type A and no vehicle of type B?</p> | <p>The Purchaser requirements are for 2 different types of vehicles as specified in the bidding document. Type A is 4WD and as specified in the bidding document. But Type B can be proposed with 2WD also. Other specifications will not be changed,</p> | 1 |
| 40 | 133 | | | <p>In section VII Schedule of Requirements, page 133, “DF antenna should be low profile type and disguised or hidden (covered)”. Is it acceptable if the antenna is painted in a similar colour as the vehicle?</p> | <p>No, should be hidden (covered) we've already purchased 3 MMS cars with antenna + mast, therefore, this project, we prefer the MMS with hidden antenna by Car roof rack with cargo box or hidden into the car.</p> | 1 |

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| 41 | 135 | | | In section VII Schedule of Requirements, page135, §3.2.6, line “Equipment Shelter”, the provision of a 19” rack is specified for the equipment. In the case, that the equipment provided by the supplier doesn’t require a rack, we assume that it is not mandatory to provide a rack. Could you please confirm that this is acceptable? | Equipments should be installed in 19” standard rack. That is suitable and easier for operation, troubleshooting and maintenance and also for future use. | 1 |
| 42 | 42 43 | | Evaluation and QualificationCriteria | Regarding the Post-qualification requirements,(1) It says the lowest-evaluated bid(or bidder) will be determined at the first qualification, how many bidwill be determined for the post-qualification? | The lowest compliant bid (technically and commercially) will be post-evaluated first. If it fails, the second Lowest compliant bid will be post-evaluated and so on. | 1 |
| 43 | 43 | | Evaluation and QualificationCriteria | (2) about the experience requirements, it says the value of 3 contracts must be greater than 50% of thevalue of the Bid. The question is, this qualification criteria going to pass or fail only as result or to be scoring evaluation out of all scores? | Please refer to question 10 | 1 |
| 44 | 126 | | Schedule of Requirements | Types of modulation - identification, analyses and measurements :What is the definition of 'identification' work? | Modulation – identification means the system should be capable of identifying the modulation type of a carrier. The Supplier can enumerate the list of identifiable modulation type by the offered system. | 1 |
| 45 | 121 123 125 | | Schedule of Requirements | Generally speaking, Single Station Location(SSL) is the system to find where the unknown signal is. In thiscase, should it be the direction only or the location in the definition of this RFP? | Please refer to question 18. The location of a stationary target will be required. | 1 |
| 46 | 127 | | Schedule of Requirements | Spectrum analysis/measurements for the following systems; (Analog, Digital FM BroadcastGSM/EDGE/EDGE Evolution, WCDMA/HSPA+ , LTE,CDMA 2000, 1xEV-DO, WLAN WiMAXThe handheldspectrum) :What kind of parameter measurement should be operated exactly? Does it include decoding anddemodulation work? | Only spectrum measurements are required, decoding and demodulation of digital systems are not in the scope of this tender | 1 |

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| 47 | 127 | | Schedule of Requirements | What the work scope of common modulations? Does it include the decoding work to the digital signal aswell? | It refers to demodulating analog modulated signals such as AM, FM, SSB, etc. | 1 |
| 48 | 132 | | Schedule of Requirements | What is the definition 'Detection mode'? Does it mean that identification work to these modes? | It means demodulation of these modes | 1 |
| 49 | 4 | FMS Type I | has Spectrum Monitoring capabilities from 9 kHz up to 8 GHz and Direction Finding (DF) capability from 20 MHz up to 3 GHz. A Spectrum Monitoring Control workstation should be provided for FMS Type I to allow a future operator to be stationed at the site and to be able to control the spectrum monitoring network from the FMS Type I location. | Should the workstation be provided mornitoring for furture operator as FMS type I? | The workstation refers to items 20123 and 20223 | 1 |
| 50 | 35,36 | ITB 16.4 | The price for spare parts will be the same | Must the spare parts price be the same price within 10 yrs? | As it is stated the bidding document: "The Bidder is be required to guarantee that if a discount is offered in the bid, on the prices of the spare parts supplied with the main equipment, the cost of all future supplies of spare parts shall be based on the discounted prices." So after discount (if have) the spare parts price is similar equipment price, and price should not be increased during 10 years | 1 |
| 51 | 43 | (a), (b),...(b) | (a) if bidder is manufacture: (i), (ii) b, c, d. (b)if bidder is not manufacture: | pls correct the items (a), i, ii, iii, iiiii, iiiii, (b).... Can we use the reference from manufactures for our evidence? | The (a), (b) and (c) clauses under (ii) belong to the (ii) clause. If the Bidder is not a Manufacturer then refer to the clause (b) titled " If Bidder is not manufacturer:" | 1 |
| 52 | 104 | Section:VI I Line Item- 20114 | 20 meter tower installed on top of an existing building | height of existing building? | This information is not available at this stage, for the sake of the bid, assume the height of the existing building to be 30 meters. | 1 |

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| 53 | 133 | | Number of city type vehicles (Type B) with automatic transmission. SUV type 4x4, left-hand drive. | Can not find the SUV car support; auto gear type 4x4 with low power engine as 2.2 or 2.5. Can you agree with 2 wheels drives? | Yes, the bidder can propose with 2WD for Type B MMS but other specifications should not be changed. | 1 |
| 54 | 145 | 10105 | Networking software for administration, routing and DBA, including IP protocol. | - What is the detail functions/description/working principle of networking software? - What network that the Networking software will be used for administration and routing? - What is the meaning of DBA? - If the Spectrum Monitoring software already includes function of networking administration, routing, DBA (including IP protocol), does bidder need to offer other separated networking software? | DBA refers to Database Administrator. The networking software is a set of tools to allow the Network Administrator to manage the IP network and the 10103 component. If your software includes these tools, then this should be sufficient. | 1 |
| 55 | 146 | 10107 | GIS or mapping software, including mapping tools and DTM conversion software? | - What is the purpose of mapping software? - What is the detail function and working principle of mapping tools? - What is the source and destination data format of mapping tools and DTM conversion software? - If the Spectrum Monitoring software already includes function of map management, do bidder need to offer other separated mapping software? | The mapping software will be used for the DF triangulation utilities, tracking the MMS and TMS monitoring systems from the remote control stations, locating target RF sources on a map, tracking an RF signal from the MMS, etc. If your software provides these capabilities then there is no need for additional software. However, the supplied software should provide import functions to allow the Purchaser to import existing or future acquired digital maps into the supplied software. | 1 |
| 56 | 158 | 40106 | Directional log-periodic receive antennas for VHF/UHF, Passive. With adapter to mount the antenna on the tripod and 5 meters of RF cable. Frequency Range 20 MHz – 3000 MHz | What the purpose of this directional antenna? This antenna is used for Handheld Spectrum Analyzer? How height of required tripod? | The directional antenna will be mounted on the supplied tripod outside the MMS, Directional antennas could be used to amplify the RF signal in one direction while attenuating other signals from the other directions. This antenna can be connected to the handheld Analyzer as well as to the main receiver. A reasonable height of the tripod would be between 2 to 2.5 meters | 1 |
| 57 | 166 | 40214 | Auxiliary portable generator | This is Electricity portable generator? How minimum power consumption is required? | Correct. Minimum power required is twice the required load of the supplied equipment. | 1 |

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| 58 | 167 | 40216 | GPS unit | Do you need handheld GPS with screen or GPS receiver only? | A GPS receiver should be integrated with the Direction Finding System. It is also required to provide a handheld, rugged GPS with color screen for MMS separately | 1 |
| 59 | 43 | Part 1, Section III, 3.1a) | The Bidder must have supplied Radio Spectrum Monitoring Systems that have been field proven in actual service. To meet this criteria, the Bidder must demonstrate that the proposed systems have been in satisfactory service with at least three (3) telecommunications organizations for a minimum period of three (3) years on the date of bid opening and the value of such contracts are greater than 50% of the value of the Bid. | It is assumed that the value of the total contracts is greater than 50% (and not of each individual contract). | Please refer to question no.10 | 1 |
| 60 | 87 | Part 1, Section IV, | Spares for an initial three-year period)itemized complete spares list by the bidder is required) 1 Set | In the BDS end of Pg. 35 and beginning of Pg. 36 it is required: "The Bidder shall quote in price Schedules 1 and 2 of Section VII, the supply of spare parts and components for all items of equipment adequateto maintain and operate the main equipment for a period of five (5) years after the expiration of the warranty period. The cost of this five (5) year stock of spare parts shall be considered in the evaluation of the bids." Please clarify. | Please refer to question 34 | 1 |
| 61 | | Part 2, Section VII Page 123 (table) Page 125 (table) | | Please note that SSL is used for HF fixed stations, and in your document it is required in all stations. Please reaffirm the spec and specify the stations you request to do SSL, and the desired frequency range | Please refer to questions 18, 38 and 45 | 1 |

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| 62 | 158 164 169 | Part 2, Section VII | | You have specified passive antenna starting from 9KHz in the vehicle and TMS. Such antenna has big dimensions and it is not feasible to use it in a vehicle. Is it possible to implement it with active antenna? | Active HF antennas will be accepted for the solution. | 1 |
| 63 | 147 150 153 156 | Part 2, Section VII | | You have specified passive antenna starting from 9KHz in the Fixed stations. Such antenna has big dimensions and requires wide installation area. Is it possible to implement it with active antenna? | Active HF antennas will be accepted on all sites | 1 |
| 64 | 158 164 | Part 2, Section VII | | You have requested Log Periodic antenna starting from 20MHz. Such antenna is massive and bulky for vehicle installation. We recommend antenna that starts from 50MHz, which is smaller and easier to handle | This antenna is not intended to be mounted on the vehicle but rather on the supplied tripod. Active antennas will be accepted in the mobile. Antenna frequency range will be from 20MHz to be consistent with the other HF antenna frequency ranges from 9Khz to 20MHz. But the bidder can propose with the sets of antennas instead of one antenna. | 1 |
| 65 | 147 150 153 156 | Part 2, Section VII | | You have requested Log Periodic antenna starting from 20MHz in the FMS stations. Such antenna is massive and bulky for field installation. We recommend antenna that starts from 50MHz, which is smaller and easier to handle | The Purchaser will accept this solution | 1 |
| 66 | 181 | Part 3, Section VIII, parag. 6 | | Please clarify that if the bidder is a consortium where one the parties is the manufacturer, then: it is sufficient that only the manufacturer meets the requirements of the manufacturer for post qualification (Page 42, Section III, paragraph 3.1 (a)). | Page 42, 43: If the main bidder in the consortium is a Manufacturer then 3.1 (a) should apply and if the main bidder is not a manufacturer then 3.1 (b) should apply. | 2 |
| 67 | 200 | Part 3, Section IX GCC 16.1 | Payments | We would like to receive the payments (except maybe the advance payment) by a Letter of Credit. Please consider. | Letter of Credit are complicated, the Purchaser will make the payments by wire transfer directly from the World Bank office. | 2 |

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| 68 | 51 | | | Referring to Pg 51 Price Schedule Column 8 Local Tax per line item Please provide the exact percentage for local taxes. Please kindly also provide what are the different taxes required. | Please refer to question no.32 | 3 |
| 69 | 160 166 154 157 151 147 | | | Referring to Section VII Pg 160, 40106/Pg 166, 40206 /Pg. 154, 30106/Pg 157, 30206/Pg 151, 20206/ Pg147, 20106 - Directional Log-periodic antenna A frequency range down to 20MHz requires an antenna of approximately 5m by 6m which can neither be installed on a car nor on top of the tower. Therefore, a frequency range of 80MHz to 3GHz is commonly used and highly recommended. Please clarify if this solution can be accepted. | Please refer to question no.65 | 3 |
| 70 | 128 | | | Referring to Pg 128 towers and antennas should sustain 180km/hr wind velocity Please clarify how the wind-load of 180km/hr will be verified. Will there be a need for international certification for the construction (PE certified). | Please refer to Pre-Bid meeting minutes question no.13 | 3 |
| 71 | 131 | | | 4Referring to Pg. 131 Frequency Range (FMS Type I, MMS and TMS) Given that frequencies above 8GHz are commonly being used in Myanmar today an extension of the frequency range to 18GHz or even to 26.5GHz should be beneficial. Please clarify if this tender specification for the frequency range will be adjusted accordingly. | Please refer to Pre-Bid meeting minutes question no.14 | 3 |

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| 72 | 206 | | | <p>Referring to Pg. 206 GCC27.1 The above rate and maximum apply to the price of the part of facilities, as quoted in the price schedule, for that part for which the supplier fails to achieve Provisional Acceptance within the particular time for completion.</p> <p>Please clarify if the “facilities” means lots/components and the contract price in this scenario means “contract price per lot/component”.</p> | <p>It refers to Components: 10100, 20100, 20200,30100, 30200, 40100, 40200, 50100, and related services</p> | 3 |
| 73 | 207 | | | <p>Referring to Pg. 207 GCC 28.3 In partial modification of the provisions, the warranty period shall be 18 months from date of acceptance of the Goods.</p> <p>Please clarify if warranty for the equipment starts after the acceptance of each individual lot as stated in the price schedule</p> | <p>The warranty period will start after the final acceptance tests of the whole system. The plan is to execute the final acceptance tests of all the sites (whole system) in a 2 week-period.</p> | 3 |
| 74 | 174 | | | <p>Referring to Section VII Pg174, 50113 – UPS – UPS/Inverter for at least 5 hours of operation To support operation for at least 5 hours would require several UPS batteries and it would be heavy. Given that a mobile generator is provided, a 30 mins UPS standby would be sufficient. Please clarify if this possible.</p> | <p>The Purchaser requires 5 hours of operation in silent mode (UPS/Batteries) of monitoring equipment only. (the AC is not required to be running for 5 hours in silent mode)</p> | 3 |
| 75 | 126 | | | <p>Pg.126 (Measurements for the following Modulation type: Amplitude + Angle Pulse) Please confirm if the above modulation refers to Pulse-amplitude modulation (PAM). In case not applicable, please provide information how to understand Amplitude + Angle Pulse measurement?</p> | <p>Confirmed.</p> | 3 |

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| 76 | 125 | | | <p>Referring to Pg. 125 Direction Finding and Triangulation using Single Station location techniques over digital map.</p> <p>Single Station Location (SSL) is only applicable to HF direction finding. The location is obtained by computing the information below to obtain the location of transmitter.</p> <ul style="list-style-type: none"> -measuring the direction of arrival of signal, -measuring the height of the ionosphere -then calculating the angle of arrival of the signal after being refracted from the ionosphere. <p>Please clarify if the single station location refers to the SSL in HF direction finding or does the single station location means that that the single monitoring station can initiate triangulation by activating other stations to direction find or by recalling other saved bearings.</p> | Please refer to questions no.18, 25, 38 and 45 | 3 |
| 77 | 147 | | | <p>Referring to Pg. 147 Receive antennas, including RF lines and Switches, VHF/UHF/SHF, Vertical Polarization, Passive, OMNI. Frequency Range 9kHz-8000MHz</p> <p>Fixed sites are intended to be deployed in congested RF areas where there could be a potential of signal overload. However, typically strong transmitters are coming from the FM and TV broadcasters, which are below 1GHz.</p> <p>As such please advise if tenderer are allowed to provide passive antennas from 20Mz to 1GHz or to 3GHz.</p> <p>The remaining part of the frequencies shall be covered by the active antennas.</p> | Please refer to question no.22, 23, 62, 63. | 3 |

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| 78 | 45 | Section IV | ... Letter of Bid.. Discount Price | Bidder shall propose discount price and its method of calculation in the Letter of Bid. Total price of bid will be separately offer the letter as well. When Purchaser do the evaluation for lowest bid, it will make comparison based on Price of Bid only and discount amount will not take into account for first evaluation. However, discount will be discussed during the contract negotiation. Please clarify our understanding is correct or not correct. | Yes, your understanding is correct. | 3 |
| 79 | 38 35 201 183 | Section II Section II Section VIII Section VIII | - ITB 32.1 ☐ Bid can be in various currencies. All currencies will be converted to USD on bid opening day as per the CBM exchange rate '- No need to quote Myanmar Kyat for the in country expenses '- Payment of local costs incurred in the purchaser's country will be made in Myanmar Kyats at prevailing selling rate as provided by the Central Bank of Myanmar '- The currencies in which payments shall be made to the Supplier under this Contract shall be those in which the bid price is expressed | We are not sure which currency we can propose for both local & imported equipment, materials & services. At the same time how Purchaser will do the payment in which currency to the supplier? The information indicating in the RFP is still not cleared and clarification required for ; - Which currency supplier may quote for equipment, accessories & services? - In which currency Purchaser will do the payment to the Supplier? | Suppliers should quote in any type of currency from the Central Bank of Myanmar. Payment will be made in USD. See in; - http://forex.cbm.gov.mm/index.php/fxrate | 3 |
| 80 | 183 | Section VIII | Taxes & Duties : For goods manufactured outside the Purchaser's Country, the Supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the Purchaser's Country. As per the informatin in RFP, all duties & taxes realated shall be paid by the Supplier. During clarification meeting, Purchase also said to include 2% Withholding Tax & 5% Commercial tax will be deducted during the payment. | Please clarify following points related to Taxes & Duties; - Taxes & Duties amount shall not take into account for the lowest price evaluation - Supplier also need to pay for the import taxes or not? | All prices should be quoted DDP Final Destination including all local taxes, duties, transportation, etc.. Pls, refer to question no.32. | 3 |

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| 81 | 41 | Section III | Evaluation & Qualification Criteria | RFP did not mention the detail Technical Evaluation Criteria. Can Purchaser provide the calculation method, process of Technical Evaluation? | Supplier should submit detailed acceptance test according to the schedule defined in the IFB | 3 |
| 82 | 20 | Section II | Bid Security | Supplier shall deposit \$50000 bid security. Upon successful vendor bidder's contract signed, bid security will be returned to both successful & unseccessful vendor. Successful vendor will be continue to deposit "Performance Security"? Please clarify our understanding is correct as per the attached concept diagram in next sheet "BSPS_Concept" | Your understanding is correct | 3 |
| 83 | 37 | Section II |Searchable Softcopies | Please clarify searchable copies meant Word to PDF converted files or Word file itself which can be editable as well. | PDF are acceptable as long as search function is available. (No Scanned documents) | 3 |
| 84 | 37 | Section II | Submission of Bid - Hard Copy | Supplier shall submit 1 x Original & 4 x Copy of hard copies to Purchaser. Please clarify our understanding is correct and "Original" and "Copy" marking are only mark on envelop or all pages of the RFP Forms? | Mark first page of the document | 3 |
| 85 | 187 | Section VIII | Inspections and Tests : 26.1 The Supplier shall at its own expense and at no cost to the Purchaser carry out all such tests and/or inspections of the Goods and Related Services as are specified in the SCC. | As per the GCC, inspection & test cost shall be bear by the Supplier own cost. However, the unit prices are requested to mention in the Price Schedule also. Please clarify inspection & test are quotable in the bidding price or hide to show in the price schedule? | Suppliers should quote Inspections and Tests | 3 |
| 86 | 211 | Section VIII | Advance Payment Security | Advance Payment Security is mentioned in the RFP. Please clarify what is the purpose of Advance Payment Security related to this RFP? | Advance Payment: Ten (10) percent of the Contract Price shall be paid within thirty (30) days of signing of the Contract, and upon submission of claim and a bank guarantee. The 10% guarantee will be returned to the Supplier after final acceptance test | 3 |
| 87 | 35 | Section II | Incoterms : 2010 | Please clarify who will be the "Consignee/Importer" of equipment not manufacture in Purchase's country? If Supplier has no rights to import goods to Myanmar, will Purchaser may use their name as "Consignee"? | Yes | 3 |

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| 88 | 91 | Section VI | Manufacturer's Authorization Letter | Please clarify Supplier can get only MA Letter from main parts of each MCC, FMS, MMS and TMS or each components of manufacturer? Getting MA Letter from each components of manufacturer is taking too much time. | Manufacturer's Authorization Letter is only required to main monitoring equipment | 3 |
| 89 | 37 | Section II Section III | The bidder shall have presence in Myanmar or South East Asia to carry out after sales services ... ----- The Bidder must have presence in Myanmar or South East Asia to provide technical support for the proposed spectrum monitoring equipment ... | Can we regard "after sales service" and "technical support" as the same things? | It must be included warranty, technical support, training, etc.,...technical support may be the answer(support) provided remotely via phone or email but after sale service will be on site for checking, troubleshooting, deliver and collect faulty parts...etc. | 3 |
| 90 | 128 | Section VII | ..., audio files should be stored in commercially available formats, ... | What does "commercially available formats" mean? Is it mp3? Could you show us the list of available formats? | mp3, wav, etc.. | 3 |
| 91 | 45 | Section IV | Letter of Bid; Invitation for Bid No. : <-- ? | Is it the same with "Credit No. 5353-MM" shown at the first page of Invitation for Bids? | IFB No: G1.3.1 | 3 |
| 92 | | | | Our manufacturer has fully authorized us and we are able to provide manufacturer authorization for specified in ITB Data Sheet 17.2(a). We will be the first line support and our manufacturer will be in our background for fully support for after sales services. We and Our manufacturer will grant the spare parts of product & system for this PTD tender G1.3.1 for 10 years. Can we use our manufacture's references of past three (3) years? If you agree upon above mentions questions, 2. Can we be qualified for Qualification (ITB 36) 3.1.ii (b) as a Bidder is not manufacturer, but is offering the Goods on behalf of the Manufacturer? | Please refer to question no.51 and the Pre-Bid meeting minutes question no.9. Pls, also refer to question no.93. | 3 |

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| 93 | | | | <p>Regarding the experience requirement, should all three (3) telecommunications organization, the bidder has experience with, be in other countries than its own?</p> <p>On Invitation for Bids, page 4, it says that the experiences should be with other countries' organization than the bidder's country, but on page 43 which describes Pre-qualifications, it does not mention about the nationality of the organizations.</p> <p>Also, on page 13, it says the Invitation for Bids is not part of the Bidding document, so I would like to clarify whether all three experience certificates have to be from other countries' organizations.</p> | <p>If the Bidder is a Manufacturer: The Bidder must have supplied such system to Telecommunication Organizations in countries other than its own. But, if the Bidder is not a Manufacturer: Pls, refer to pre-bid meeting minutes question no. 9. Pls, also refer to question no. 51 for more clarifications.</p> | 3 |
| 94 | 117 | Section VII | <p>Clause # 2, 1201, 1501 Operation and Maintenance Support: 2 Years ----- Warranty for 18 months after final acceptance of the whole ssystem (firm): 18 Month</p> | <p>We think you may need the maintenance support within the warranty period. In that case, your requests contain the maintenance within the warranty period and the 2 year maintenance. Can we think that the 2 year maintenance period includes the maintenance within the warranty period? (total maintenance period: 2 years) Or should we separate the 2 year maintenance period from the maintenance within the warranty period? (total maintenance period: 2 years and 18 months)</p> | <p>The Warranty for 18 months should include the maintenance and the support for the duration of the warranty period. The 2 year maintenance is required when the warranty period ends.</p> | 4 |
| 95 | 124 | Section VII | <p>Clause 3.2.1 'Automatic detection, recognition and measurement.</p> | <p>What does "'Automatic detection, recognition and measurement" mean? The function like Memory Scan or Program Search?</p> | <p>The capability of the system to automatically recognize commercially available systems such as FM, AM, GSM, CDMA, etc... The Supplier shuold list the systems/modulation that can be automatically be recognized.</p> | 4 |
| 96 | 148 151 155 157 161 167 172 | Section VII | <p>Clause #: 3.2.9, 20120, 20220, 30120, 30220, 40118, 40218, 50118, Tools and instruments, station (additional, if applicable)</p> | <p>What are "tools and instruments"? Are they equipment for monitoring that is required in other components such as Spectrum Analyzer, GPS, UPS, etc. Or industrial tools such as drivers, nippers, etc.?</p> | <p>These are tools and instruments other than the ones specified under own Item Numbers but necessary to operate the station as per Supplier's recommendations, such as pliers, screw drivers, voltmeter, etc..</p> | 4 |

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| 97 | 160 166 | Section VII | Clause #: 3.2.9, 40111, 40211, The Audio Network should be routed to the Vehicle's sound system and shared with the phone system. | Does the sentence mean that operators can listen the sound at the remote place through a phone line? The thing shared with the phone system is the sound stored in the Vehicle's sound system or the sound being recorded at that time? | It means that the vehicle should be equipped with Bluetooth and AUX audio input to connect the computer audio output to the vehicle's sound system and be able to listen to the live/recorded audio of the local/remote monitoring equipment. The audio should be routed to the controlling computer via the TCPIP link. | 4 |
| 98 | 170 | Section VII | Clause # : 3.2.9, 50111, Heavy Duty Notebook (laptop) mounted on a Laptop swivel mount beside the driver, ... | Should the supplier provide the swivel mount which the laptop with TMS can be set on? | Yes | 4 |
| 99 | 128 | | | Referring to Pg. 128 Outdoor equipment including towers and antennas should sustain 180km/hr wind velocity. Kindly clarify if the log periodic antenna has also to withstand 180km/hr wind velocity. | Technically all antennas are required to sustain 180km/hr wind velocity but due to the potential size of this antenna and if this criteria can not be met, the Suppliers are requested to specify the max wind velocity that the offered antenna can sustain. | 5 |
| 100 | | | | Referring to Credit No. 5353-MM Questions & Answers Sr. No. 64 Just to clarify pertaining to the reply, it is interpreted that log periodic antenna is not needed for MMS. This can be replaced by active antennas to cover a range of 20MHz to 8GHz. Please clarify if our interpretation is correct. If this is not correct, can we provide directional antenna instead of log periodic antenna to cover 20MHz to 3GHz? | Please refer to question no.22, 23, 56, 64. | 5 |
| 101 | | | | Referring to Credit No. 5353-MM Questions & Answers Sr. No. 65, The reply is that log-periodic antennas of 50MHz onwards can be accepted for FMS. We would like to clarify if 80MHz onwards can also be accepted. If not, can directional antennas be accepted from 50MHz onwards? | Please refer to question no.22, 23, 77. | 5 |
| 102 | 36 | | | Referring to Pg. 36 ITB 16.4 On the last paragraph, "The Bidder shall guarantee that the software products and licenses shall be accompanied by a ten (10) year support warranty." Please clarify the definition of support warranty. | The 10 year warranty includes: 1- End of Life not less than 10 years from the date of the final acceptance test 2- Portability for new operating systems should be maintained for at least 10 years 3- New releases should be provided to fix any potential bugs and errors for 10 years | 5 |

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| 103 | 37 | | | Referring to Pg. 37 ITB 20.2 Please clarify if the power of attorney requires notarization by the Myanmar embassy of Singapore | It is not required | 5 |
| 104 | 207 | | | Referring to Pg. 207 GCC28.3 Please clarify the definition of "consumption guarantees" and "contractual guarantees". | Consumption Guarantees: The Purchaser is requesting 18 months warranty period, the supplier has to supply all the consumables required to keep the system running during that period such as (batteries, fuses, etc.). Contractual Guarantees: All the items listed in the Price Schedules of all the components and related services required under this IFB | 5 |
| 105 | 133 | | Clause: 3.2.4-Vehicle Parameter/Requirements Description: 1- Number of off-road type vehicles (Type A) with manual transmission. SUV type 4x4 (4WD), left-hand drive. 2- Number of city type vehicles (Type B) with automatic transmission. SUV type 4x4, left-hand drive. | For the off-road vehicles (type A), if the supplier can demonstrate that the offered vehicles have excellent off-road capabilities and follow the other specification like engine power, left hand drive, diesel type etc, is it possible to offer a Van with 4WD off-road capabilities instead of a SUV? | The Purchaser requires an SUV type vehicle to be supplied under this IFB | 6 |
| 106 | 133 | | Clause: 3.2.4-Vehicle Parameter/Requirements Description: 1- Number of off-road type vehicles (Type A) with manual transmission. SUV type 4x4 (4WD), left-hand drive. 2- Number of city type vehicles (Type B) with automatic transmission. SUV type 4x4, left-hand drive. | For the city type vehicles (type B), if the supplier can demonstrate that the offered vehicle have excellent off-road and city capabilities and follow the other specification like engine power, left hand drive, diesel type etc, is it possible to offer a Van with 4WD off-road capabilities instead of a SUV? | Please refer to question no. 53 | 6 |

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| 107 | | | | If the bidder is a consortium, should all members of the consortium submit 3 year audited financial reports? | The main bidder (leader) of the consortium must submit the report. If the Supplier is a joint venture, consortium, or association, all of the parties shall be jointly and severally liable to the Purchaser for the fulfillment of the provisions of the Contract and shall designate one party to act as a leader with authority to bind the joint venture, consortium, or association. The composition or the constitution of the joint venture, consortium, or association shall not be altered without the prior consent of the Purchaser. | 7 |
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