SUPPLY OF RADIO EQUIPMENT IN THE SCOPE OF THE BORDER MANAGEMENT PROGRAMME FOR THE MAGHREB REGION (BMP-MAGHREB) – MOROCCAN COMPONENT

Identification number: ICMPD/19.036/SUP/BMP/RAD/MOR

CLARIFICATION N°4

Updated 1/11/2019

The ICMPD would like to confirm the following update in the tender dossier documents:

I. Under table displayed under section 7 of the Contract Notice “Number and titles of lots”, inter alia with section 1 of the Instructions to Tenderers “Supplies to be provided”, under Lot 1, item 3; the quantity has increased from 600 to 1100. Furthermore, under Lot 3 of the same table, item descriptions have change. These changes have been made in both ENG and FR versions.

II. Technical Specifications (file 5. Annex II and III TS and Tech Offer.docx), lot 1 - item three; the quantity has increased from 600 to 1100. Furthermore, under Lot 3 of the same table, item descriptions and specifications required have change. These changes have been made in both ENG and FR versions. Kindly see files updated on 1/11/2019 in our website under “clarification no 4 documents” for further details.

III. Budget breakdown (file 6. Annex IV – Financial Offer.xls) lot 1 - item three; the quantity has increased from 600 to 1100. Furthermore, under Lot 3 of the same table, item descriptions and specifications required have change. These changes have been made in both ENG and FR versions. Kindly see files updated on 1/11/2019 in our website under “clarification no 4 documents” for further details.
The following questions of general interest to all prospective tenderers have been raised in the course of the tender procedure.

**Question 1: Radio Configuration**
Motorola and Sepura radios or equivalent are requested in Lot 1 (item 1, 2, 3, 4) and in Lot 2 (item 1, 2). Please confirm that the configuration of these radios is not required and will be done by the end user.

**Question 2: Radio Installation**
Motorola and Sepura radios or equivalent are requested in Lot 1 (item 1, 2, 3, 4) and in Lot 2 (item 1, 2). Please confirm that installation of these radios is not required and will be done by the end user.

**Answer 1 & 2:** (updated answer No. 1 & 2 from Clarification Note No. 3)
Most of the final radio configuration will be performed by the end user. Any extra licenses required in the Technical specifications document for specific radios must be provided together with the radio (e.g. GPS activation license, encryption license...). All other radio accessories required in the technical specifications (e.g. microphones, external speakers, desk trays/stands, power supplies, leather cases, headset kits...) must be provided with the radio in the original packaging provided by the manufacturer.

**NEW NOTE:** Professional support / transfer of knowledge (radio configuration and programming) should be provided by the winning bidder for Item number 3 in Lot 1 – “Tetra Hand Radio # 1: Sepura STP9000 series or EQUIVALENT with accessories”.
Please refer to the latest Technical Specifications document ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER / ANNEXE II + III: CAHIER DES CHARGES + OFFRE TECHNIQUE) for Lot 1 / Item number 3 - quantity has been changed (quantity increased from 600 to 1100) and requested support has been added as required.

No other (configuration, programming or hardware installation) support is required for other Hand and Mobile Radios.

**Question 3: Installation of Ericsson Mini Link**
It is requested in the Lot 3 item 1 “Mini link” Complete Installation. However, in the same item it is requested “Installation Support requested”.
Please clarify whether we should handle the full installation of radios or only the supervision of installation by an expert, and the installation will be done by the end user.

If we should handle the full installation, please inform us with the coordinates of the 30 sites where the links shall be installed.
**Answer 3:** (updated answer No. 3 from Clarification Note No. 3)

“Complete installation” should be understand that all needed Outdoor and Indoor modules defined with the technical specifications including cabling, cabinets, other mounting parts etc. must be included in the “package” provided, installed and configured by the selected bidder.

The installation will be carried out at verified existing locations in Morocco (Rabat, Casablanca, Tangier and Tetouan area) where all other infrastructure already exists (appropriate facilities, antenna masts / pylons, static assessment, LoS simulation, etc.).

Exact locations will be provided to the selected bidder by the end user in a timely manner.

**NEW NOTE:** We have updated technical specifications for Lot 3, please refer to the latest Technical Specifications document (ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER / ANNEX II + III: CAHIER DES CHARGES + OFFRE TECHNIQUE).

**Latest changes:**
- requested model of Ericsson MINI-LINK has been changed as initially proposed model is approaching EOS
- an “equivalent” link option that technically meets the specifications is now offered
- quantity of links has been changed from 30 to 15

**Question 4:** (updated answer No. 10 from Clarification Note No. 3)

Related to the Budget Breakdown, in the installations support requested:

Q: Complete 30 pcs of Mini Link TN R5: INDOOR Access Module Magazines (AMM) with plug-in units + OUTDOOR Radio Units (RAU) with Antennas (ANT. What are the locations of the different sites where radio links will be deployed?

Q: Related the Installation Support requested is for configure the CISCO system or the radiolinks?

**Answer 4:**

The installation will be carried out at verified existing locations in Morocco (Rabat, Casablanca, Tangier and Tetouan area) where all other infrastructure already exists (appropriate facilities, antenna masts / pylons, static assessment, LoS simulation, etc.).

Exact locations will be provided to the selected bidder by the end user in a timely manner.

Complete Installation & Configuration of Ericsson Links is required.
**NOTE:** We have updated technical specifications for Lot 3, please refer to the latest Technical Specifications document (ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER / ANNEXE II + III: CAHIER DES CHARGES + OFFRE TECHNIQUE).

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**Question 5:**

*Pour les FH Ericsson*

Les équipements que vous demandez en ERICSSON ne seront plus commercialisés en 06.2020. Donc soit on vous cote ces équipements dans ce cas vous ne pourrez plus en racheter après le 30.06.2020, sinon on vous cote les nouvelles gammes.

Également pouvez-vous nous transmettre :

- pour les têtes radio fréquence et indice
- fréquence souhaitée pour les antennes
- le débit souhaité pour les cartes qui vont bien dans les AMM (qui sont des châssis) à moins que vous ne voulez uniquement que des châssis, mais cela va marcher beaucoup moins bien.

**Answer 5:**

We have updated technical specifications for Lot 3, please refer to the latest Technical Specifications document (ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER / ANNEXE II + III: CAHIER DES CHARGES + OFFRE TECHNIQUE).

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**Question 6: (with 17 sub-questions)**

**Lot 3 – Microwave Links:**

Concerning Ericsson links part, here are some input data we need to have for building MW network/link:
**NEW NOTE:** We have updated technical specifications for Lot 3, please refer to the latest Technical Specifications document (ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER / ANNEXE II + III: CAHIER DES CHARGES + OFFRE TECHNIQUE).

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**Question 6.1:** We need to understand if there are stand-alone links or a network Links.

*Answer 6.1:* Network Links, but it has to be seen as just a swap of standalone links.

**Question 6.2:** In case of a network link, we need to have the network topology drawing in term of the number of sites? How they are connected to each other? Any further expansion plans (additional directions may be required in the future from specific sites)?

*Answer 6.2:* Installation and configuration means replacing / swapping of already existing and worn out stand-alone links (Outdoor and Indoor units) on the existing locations.
The installation will be carried out at verified existing locations in Morocco (Rabat, Casablanca, Tangier and Tetouan area) where all other infrastructure already exists (appropriate facilities, antenna masts / pylons, static assessment, LoS simulations, etc.).
We believe that no further information is necessary at this point.

**Question 6.3:** Frequency band and frequency bandwidth available? Please note there is a need to specify the sub-band when frequency has been decided.

*Answer 6.3:* 15GHz frequency band is requested by the Technical Specifications document. Bandwidth: 1 couple of 28 MHz (the Sub-band range or exact frequencies will be given later in a timely manner, before the execution step).

**Question 6.4:** Please also bear in mind with multiple links in the same area that there is a risk of interference. We recommend to perform a Spectrum Analysis to get the best performance.

*Answer 6.4:* We are aware of such situations. It is a swap of existing / well working links.

**Question 6.5:** Capacity for every hop?

*Answer 6.5:* Licenses for the max capacity with 1 couple of 28 MHz must be included.
**Question 6.6: Distance for every MW hop?**

Answer 6.6: The distances for individual hops are different, between 3 and 30 km, where LoS is not in question.

**Question 6.7: GEO positions?**

Answer 6.7: Exact locations will be provided to the selected bidder by the end user in a timely manner. We believe that no further information is necessary at this point.

**Question 6.8: Antenna size (not so important if we have GEO positions)?**

Answer 6.8: Exact number and size of antennas are clearly defined with Technical Specifications document.

**Question 6.9: Antenna height installation / height of tower or building?**

Answer 6.9: There is no need for additional studies, simulations, LoS calculations etc. Links are a direct replacement / swap of already existing and worn out links on the existing locations.

**Question 6.10: Type of protection 1+0, 2+0, 1+1 for redundancy?**

Answer 6.10: Please refer to the latest Technical specifications document for Lot 3. **2+0 Configuration** (2 MMU + 2 ODU + 1 Divider / Coupler + 1 Antenna) for each direction is requested.

**Question 6.11: Split mount equipment or all outdoor?**

Answer 6.11: Split Mount installation / equipment is required according to the Technical Specifications document.

**Question 6.12: Link availability / Uptime depending on LoS and weather in %?**

Answer 6.12: All Licenses *(Functionality, Modulation, Adaptive Modulation, All Existed Ports Enabled)* should be included for the Maximum capacity with 1 couple of 28 MHz.

**Question 6.13: Do you require XPIC link?**

Answer 6.13: Only Licenses are required.

**Question 6.14: Power requirement? The MW links are using -48V DC. Do you need power supplies from 230V or 120V AC? Do you require battery backup?**

Answer 6.14: All Sites, already, have the -48V DC power available including Power Supplies with 230VAC input and battery backup. No additional power supply units for MW Links are required with the Technical specifications document.
**Question 6.15:** Do you need solar power packs for remote areas?

*Answer 6.15:* No, not required by the Technical specifications document.

**Question 6.16:** What type of connection port in your existing IT equipment are we going to connect to?

*Answer 6.16:* RJ45: E1 / GE ports are required, please refer to the Technical specification document.

**Question 6.17:** Normally we will add the following licenses to the links:
- If XPIC (2+0) links:
  - Base package
  - O&M Usability - Enables GUI provisioning and troubleshooting
  - Cap Booster - Enables Radio Link Bonding. Multi-band booster
  - TX HP High Power - Enables High Power mode
  - Enable Eth port - Enables one additional Ethernet 1GB port (2 ports already enabled)
  - 2nd carrier - Enables the second Radio Link carrier
  - Freq opt - Enables efficient usage of both polarizations of a frequency channel by enabling XPIC.

*Answer 6.17:* All Licenses (Functionality, Modulation, and all Existed Ports Enabled) should be included for the Maximum capacity for 1 couple of 28 MHz.

**Question 7:**

**Lot 3 – Microwave Links:**
We are talking about 30 links but in quantities there are only 30 chassis, but 30 chassis do not make 30 links. What should we take into account?

*Answer 7:*
Please be aware that technical requirements have been updated for Lot 3, please refer to the latest Technical Specifications document (*ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER / ANNEXE II + III: CAHIER DES CHARGES + OFFRE TECHNIQUE*).

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Each site of the link (15 x 2 = 30) should have its own rack (chassis). 30 ODU and 30 IDU are needed for 15 links, it means 10 “smaller” and 5 “bigger” links (pairs), please refer to the technical specifications document for details about the required types of IDU and ODU (antennas).
Question 8:
Lot 3 – Microwave Links:
E1 were requested in RJ 45, but with the MINI-LINK TN range the E1 interfaces are available with Sofix and not with RJ45 connectors.

Answer 8:
Please be aware that technical requirements have been updated for Lot 3, please refer to the latest Technical Specifications document (ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER / ANNEXE II + III: CAHIER DES CHARGES + OFFRE TECHNIQUE).

Requested model of Ericsson MINI-LINK has been changed as initially proposed model is approaching EOS.

If the equipment doesn’t offer the RJ45 connectors, the cable adapter between the Sofix and RJ45 should be provided. E1 in RJ45 is requested.

Question 9:
Lot 3 – Microwave Links:
There is a request for a 2-0 configuration - 1 divider - 1 coupler... Should double polarization antennas be provided? A divider or coupler alone is sufficient depending on the configuration required.

Answer 9:
Antenna divider or antenna coupler is the same equipment, just different name, so one (1) antenna divider is needed on each side of the link.

Antennas should be dual polarized (V/H).

Please be aware that technical requirements have been updated for Lot 3, please refer to the latest Technical Specifications document (ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER / ANNEXE II + III: CAHIER DES CHARGES + OFFRE TECHNIQUE).

Question 10:
Lot 3 – Microwave Links:
Backup batteries are requested, what autonomy is required?

Answer 10:
Please refer to the latest Technical Specifications document (ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER / ANNEXE II + III: CAHIER DES CHARGES + OFFRE TECHNIQUE).

All sites already have the -48V DC power available including Power Supplies with 230VAC input and Backup batteries. No additional power supply units or backup batteries are required.