

ADDENDUM NO.2

TENDER NO. ICTA/OT/13/2022-2023

DATE: 17th February, 2023

TENDER NAME: PROCUREMENT OF DIGITAL SUPERHIGHWAY-BACKBONE & METRO

S.No	BIDDER'S CONCERNS/OBSERVATIONS/COMMENTS	CLARIFICATION/ RESPONSE
1.	Tender Closing Date We seek extension of the tender closing date in order to prepare competitive bidding documents owing to the numerous clarifications sought.	THE TENDER CLOSING DATE HAS BEEN EXTENDED AS FOLLOWS: NEW CLOSING DATE: 28TH FEBRUARY 2023 NEW CLOSING TIME: 10:00AM
2.	Provide more technical details for; Power & cooling requirements. Supply and Install battery pack with battery rack PCS 1.48V DC 2. Rack Mountable 3. AC - DC Converter (240v AC to 48v DC) 4. DC to AC converter (48v DC to 240v AC) 5.12 cell Lithium battery Should we quote for a complete Inverter/charger unit? And if yes, what is the capacity	The power requirements are: - 1.48V DC 2. Rack Mountable 3. AC - DC Converter (240v AC to 48v DC) 4. DC to AC converter (48v DC to 240v AC) 5.12 Lithium batteries per bank 6. Battery capacity: 48V 100Ah lithium-ion batteries 7.Rectifier capacity: 3000W*6 8. Inverter capacity: 2KVA The cooling is minimum 24,000BTU
3.	Supply and Install of power cable 25mm ² , 16mm ² , 10mm ² , 6mm ² . How many cores per cable; Should they be armored or no-armored; Or flexible?	The Power cable is 3 cores, non-armoured
4.	Supply and Install of circuit breaker MCB ratings 10A, 23A, 32A, 63A, 100A	The circuit breaker is single pole

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	Should they be single pole; 3 or 4 pole.	
5.	Supply and Install of power Distribution Board PCS 4way, 6way. Do you require 3 or Single Phase boards?	The power Distribution Board is 3 phased
6.	We seek clarification for the below mandatory requirement - can any of the Licenses issued by CA suffice! (NPF Tier 1 License, Application Service Provider - ASP; Content Server Provider - CSP)	NPF Tier 1 license, Telecommunication Contractor License by Communication Authority will be acceptable. Application Service Provider (ASP) & Content Service Provider is NOT acceptable
7.	<p>Tension clamp</p> <ul style="list-style-type: none"> a. ADSS Fittings (as per design) b. Versatile design can be used as a stringing block (with inserts removed) c. Tangent suspension for spans up to 600 ft. d. Meets IEEE 1591.2 <p>No description given. ADSS Installation of OFC ADSS Cable Page 46 e. Installation of ADSS Clamp The specifications in terms of size i.e PA 2000 , PA 1500 etc are needed</p>	The tension Clamp shall consist of a light aluminium (or an alloy) housing with a rubber bushing capable of gently gripping the ADSS fibre cable. It shall consist of an anchor, a shackle, thimble and galvanized pre-formed guy grip of a suitable length as per ICTA standards ICTA 2.001:2021
8.	<p>Tangent clamp-</p> <p>ADSS Installation of OFC ADSS Cable Page 46 d. Tangent suspension for spans up to 600 ft No description provided: We need to know the outside diameter range of cables you want it to hold Any specific requirement if needed needs to be mentioned.</p>	The diameter will depend on the cable deployed i.e., number of cores
9.	Downlead clamp	The strap will be needed.

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	Price Schedule 7.86 Supply of downlead clamp Design needed Basically need to know if Strap is needed.	
10.	ODF -12C,24C,48C,60C,72C,84C,96C,144C- Price Schedule 7.73-7.8 Supply and install ODF No details provided. We need to know if it's Need to know if it is SC, LC, PRECONNECTORIZED OR NOT	The ODF will be LC and will be PR connectorized
11.	Data Cabinet - 6u,9u,12u,42u, Price Schedule Supply and install cabinet 7.67-7.72 No details provided, Need Specifications like, color, outdoor or indoor, dimensions, loaded or not loaded, material used	The cabinet will be indoor & grey or black color is preferred
12.	Optical splitter 1:2,1:4,1:8 Compliance with Technical Specifications Supply and Install of Optical Splitter 2.15-2.17 No details provided, Need to know if they are to be bare or with the base	The splitter will be with base.
13.	Fibre distribution Terminal - 24C,48C,96C Last Mile Active Equipment Supply and Installation 2.18-2.20 Supply and Install of Fiber Distribution Terminal- Need to know if loaded or not, Outdoor or Indoor , Black or Grey	The FDT will be outdoor, Grey in color and must be loaded
14.	Stay Rods Price Schedule 7.85 Supply of stay rod	The stay/rod wire will be needed as per the specifications

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	Need Specifications. Also need to know about the stay wire being included.	
15.	<p>All Duct & ADSS Cables Fiber Cables 1.15-1.35 Missing Information: Colour code of Red Vita - Need specific colour code Thickness of Red Vita - Exact size to be determined. It's usually between 3 to 4 mm thick</p>	The thickness will depend on the size of the cable. The color code for red is #FF0000
16.	<p>Cable Storage Bracket : Galvanized Metal Bracket- No description provided Need Details ie ; exact sizes of the Cable storage</p>	The Cable storage will be Galvanized and OD of 1m
17.	<p>J Hooks - Three sizes of J Hooks are 8 -12 mm, 10 - 15 mm & 15 - 20 mm. The prices are grossly different.</p> <ol style="list-style-type: none"> a. ADSS Fittings (as per design) b. Versatile design can be used as a stringing block (with inserts removed) c. Tangent suspension for spans up to 600 ft. d. Meets IEEE 1591.2 <p>ADSS Installation of OFC ADSS Cable Page 46 f. Installation J-Hooks Need to have specifications</p>	The J-Hooks size 10 - 15 mm
18.	<p>DOME ENCLOSURE - 12C,24C,48C,60C,72C,84C,96C,144C-</p> <p>Price Schedule 7. Accessories Fibre Transmission Box (Dome Shaped Closure) 7.59-7.66 NO technical specifications provided</p>	The Dome Shaped Enclosure will have minimum 4 entries

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	Need to know Mechanical or Heat and the number of entry holes	
19.	<p>1. Supply and Install of Small Enterprise Router 2. Supply and Install of Medium Enterprise Router 3. Supply and Install of Large Enterprise Router</p> <p>2. Last Mile Active Equipment Supply and Installation 2.3, 2.7,2.11 Support MPLS-TP MPLS-TP OAM per ITU G.8113.2 This specification is not consistent with this kind of router. It's an MPLS-TP specification the router requirement is MPLS</p>	The router should have minimum MPLS
20.	<p>Duct Cable Specifications Underground OFC Specs page 46 Provide Fiber Counts for other cables only for 96 Core</p>	<p>The fiber count will be as per ICTA standard ICTA 2.001:2021 as below :</p> <ul style="list-style-type: none"> a. For 144 F Cable: 12 loose tubes each having 12 fibers b. b. For 96 F Cable: 8 loose tubes each having 12 fibers c. c. For 72 F Cable: 6 loose tubes each having 12 fibers d. d. For 48 F Cable: 4 loose tubes each having 12 fibers & 2No. Filler e. e. For 24 F Cable: 6 loose tubes each having 4 fibers f. f. For 8,4 F Cable: 2 loose tubes each having 8 fibers & 4No Filler
21.	ADSS OFC	The fiber count will be as per ICTA standard ICTA 2.001:2021 as below :

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	<p>ADSS Installation of OFC ADSS Cable page 45 Provide Fiber Counts for other ADSS Cables</p>	<ul style="list-style-type: none"> a. For 144 F Cable: 12 loose tubes each having 12 fibers b. b. For 96 F Cable: 8 loose tubes each having 12 fibers c. c. For 72 F Cable: 6 loose tubes each having 12 fibers d. d. For 48 F Cable: 4 loose tubes each having 12 fibers & 2No. Filler e. e. For 24 F Cable: 6 loose tubes each having 4 fibers f. f. For 8,4 F Cable: 2 loose tubes each having 8 fibers & 4No Filler
22.	<p>ADSS OFC ADSS Installation of OFC ADSS Cable page 45 Fiber Count per tube and Number of tubes is inconsistent for 48 and 96C</p>	<p>The fiber count will be as per ICTA standard ICTA 2.001:2021 as below :</p> <ul style="list-style-type: none"> a. For 144 F Cable: 12 loose tubes each having 12 fibers b. For 96 F Cable: 8 loose tubes each having 12 fibers c. For 72 F Cable: 6 loose tubes each having 12 fibers . d. For 48 F Cable: 4 loose tubes each having 12 fibers & 2No. Filler e. e. For 24 F Cable: 6 loose tubes each having 4 fibers . f. For 8,4 F Cable: 2 loose tubes each having 8 fibers & 4No Filler
23.	ADSS OFC /Underground	<p>Kindly refer to the Fiber Optic-Backbone, Metro and Last Mile Infrastructure Standard First Edition 2021 ICTA. 2.001: 2021 Annex 7: Technical details of fiber</p>

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	<p>B. COMPLIANCE WITH TECHNICAL SPECIFICATIONS 1.15- 1.28 We only have specifications for 48 and 96 Core Cables Detailed information is MISSING for 4 F, 6 F, 12 F , 24 F & 144 F - OFC CABLES (Need similar details as provided for 48 F & 96 F)</p>	<p>optic cable 8,24,48,72 96 & 144 fibre (g652d) dry core, multi loose tube design, single sheath, glass yarn armoured ofc suitable for duct installation Refer: https://cms.icta.go.ke//sites/default/files/2022-08/Fiber%20Standard.pdf</p>
24.	<p>Micro OFC Cable 48, 96 ,144- Price Schedule 1.21, 1.22,1.23 No technical specifications for OFC Cable</p>	<p>Kindly refer to the Fiber Optic-Backbone, Metro and Last Mile Infrastructure Standard First Edition 2021 ICTA. 2.001: 2021 Annex 7: Technical details of fiber optic cable 8,24,48,72 96 & 144 fibre (g652d) dry core, multi loose tube design, single sheath, glass yarn armoured ofc suitable for duct installation Refer: https://cms.icta.go.ke//sites/default/files/2022-08/Fiber%20Standard.pdf</p>
25.	<p>Kindly see the below clarifications: 1. Within the qualification form in page 73-73, there exists gaps in item 7,10,11,12,13 and 14. Kindly confirm the details to be used in those gaps (eg number of years for historical performance and amount for the annual turnover). 2. There exists a survey requirement in the technical specifications. Does this infer the survey requirements post award? Give further guidance on this</p>	<p>The vendor experience has been highlighted in section 2. A technical Evaluation page 36 There is no survey requirement before award</p>
26.	<p>4.1 Supply and Install of power cable- 25mm², 16mm², 10mm², 6mm² How many cores per cable; Should they be armored or no-armored; Or flexible?</p>	<p>The Power cable is 3 cores, non-armoured</p>
27.	<p>4.3- Supply and Install of circuit breaker- MCB ratings 10A, 23A, 32A, 63A, 100A Should they be single pole; 3 or 4 pole</p>	<p>The circuit breaker is single pole</p>

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28.	<p>4.4- Supply and Install of power Distribution-Board PCS-4way, 6way Do you require 3 or Single Phase boards</p>	<p>The power Distribution Board is 3 phased</p>
29.	<p>We are an ISP. We have rolled out our network in Mombasa, Nairobi and Thika Over 1,000 KM underground and aerial.</p> <p>Clarifying if we meet the requirement of performance on similar projects: a) Provide similar projects: - i) One project of at least Kes. 30,000,000 in the last 5 years from the closing date of this tender. OR ii) Two projects of at least Kes. 15,000,000 each in the last 5 years from the closing date of this tender. OR iii) Three projects of at least Kes. 10,000,000 each in the last 5 years from the closing date of this tender. OR iv) Four projects of at least Kes. 7,500,000 each in the last 5 years from the closing date of this tender. OR v) Five projects of at least Kes 6,000,000 each in the last 5 years from the closing date of this tender. Similarity being in complexity and scope. This must involve supporting and implementation of IP network, GPON network and ADSS FOC stringing. (The bidder should provide completion certificates / Local Service Orders (LPOs)/Local Purchase Orders</p> <p>Please let us know.</p>	<p>For Internet Service Providers (ISP) undertaking Backbone & metro bids</p> <p>For Internet Service Providers (ISP)</p> <p>a. Provide similar projects</p> <p>i) Maintain a Minimum of 100,000 customers in the last 1 year from the closing date of this tender. OR ii) Maintain a Minimum of 50,000 customers each in the last 2 consecutive years</p> <p>Similarity being in complexity and scope. This must involve supporting and implementation of IP network, GPON network and ADSS FOC stringing. (The bidder should provide current certified Communication Authority of Kenya returns showing existing customers, NMS reports and Network Asset Ownership insurance)</p>

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30.	<p>On page 43 in the Backbone Tender Document, there is a requirement marked as "2. Optical and electrical" for subsection 2.2, 2.3 and 2.4 regarding 10G, 40G and 100G expansion slots.</p> <p>Kindly clarify especially on the "optical" part of this requirement.</p>	<p>In DWDM (Dense Wavelength Division Multiplexing) systems, optical and electrical racks are used for different purposes:</p> <ol style="list-style-type: none"> 1. Optical racks are used for transmitting and receiving optical signals, which are carried by light waves of different wavelengths. These racks contain various components such as optical amplifiers, optical filters, optical switches, optical multiplexers, and demultiplexers. 2. Electrical racks are used for processing electrical signals, which are generated by converting optical signals into electrical signals using photo detectors. These racks contain components such as electrical amplifiers, electrical filters, and electrical switches
31.	<p>On Page 54, Item 6.44 - in the Backbone Tender Document, 1310nm have been requested for long distances from 40km to 160km.</p> <p>Kindly clarify whether this was to be 1550nm instead.</p>	<p>This is for 1310nm</p>
32.	<p>I seek clarification on the subject tenders on Preliminary mandatory evaluation , No.14 Submit audited accounts for the last 3 years i.e. 2019, 2020, 2021/2022</p> <p>Should a bidder provide audited accounts for the year 2019 if the audited reports for the last 3 years i.e. 2022, 2021 and 2020 are available?</p>	<p>It is allowed to submit for the three years as follows: -</p> <ol style="list-style-type: none"> 1. 2022, 2021 and 2020 OR 2. 2021, 2020 and 2019
33.	<p>The requirement as is, is very general and does not specify which types of boards need to be configured.</p> <p>DWDM Design is a complex solution that needs careful configuration. Therefore, we suggest a typical configuration</p>	<p>Please refer Tender document-Compliance with technical specifications 2.1 on DWDM.</p> <p>The specific design shall be link by link but using the specified DWDM equipment specification in 2.1</p>

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	with each required board for a DWDM Solution, this will help customer to compare unit pricing effectively,	
34.	<p>Carrier grade Routers- 1x 8 Port 40/100G Line Card- For a high-bandwidth line card, it is recommended that interfaces are in different slots. All interfaces in one line card could mean service interruptions services. We suggest two to four high bandwidth interfaces per line card</p>	The specifications are as per the tender document. Please refer to tender document-Compliance with technical specifications 2.5 Carrier Grade router
35.	<p>Medium Enterprise Router- MPLS-TP OAM per ITU G.8113.2 Support SyncE Ethernet OAM 802.3ah, 802.1ag and Y.1731- MPLS-TP is a simplified version of MPLS to support traditional transport operational model. Replace with MPLS which supports more features</p>	The router should have minimum MPLS
36.	<p>Medium Entry level Enterprise Firewall- Intelligent uplink selection - Supports service-specific PBR and intelligent uplink selection based on multiple load balancing algorithms (for example, based on bandwidth ratio and link health status) in multi-egress scenarios. Firewall should have SD-WAN capability. The router already supports SD-WAN so no need for the firewall to support the same functionality and most of the load, route optimization and QoS is done at the routers.</p>	The SD-WAN capability is required for the firewall as well

The addendum & clarification forms part of the bidding document and is binding on all bidders. The tender closing/opening date has been extended to 28th February 2023 at 10:00am. All other terms and conditions of the tender remain the same.

Stanley Kamanguya, OGW
ICT Authority