



KENYA REVENUE AUTHORITY

ISO 9001:2015

“ADDENDUM & CLARIFICATION SET “1”

24th March 2020

To all prospective bidders,

RE: TENDER NO: K R A / H Q S / NCB - 069/2019 - 2 0 2 0: SUPPLY, DELIVERY AND INSTALLATION OF ICT INFRASTRUCTURE SET UP AT SHIMONI JETTY FUEL STATION

Kenya Revenue Authority wishes to inform prospective bidders of the clarifications for the above referenced tender.

CLARIFICATIONS		
ITEM No.	QUESTIONS/ISSUES	CLARIFICATION
Pg.49	Is the Site Visit Mandatory?	The site visit is NOT mandatory. However bidders are encouraged to visit the site to familiarize themselves with the scope of works and bid accurately as per the requirements in the schedule.
ADDENDUM		
ITEM No.	ITEM DESCRIPTION	ADDENDUM
Section V	Technical Specifications	Bidders are advised that the technical specifications initially detailed from pages 29 to 47 have been withdrawn and replaced with new specifications as per Annex 1, pages 1 to 13.
Section V	Price Schedule	Bidders are advised that the Price Schedule initially detailed in pages 53 and 54 has been withdrawn and replaced with a new Price Schedule as per Annex 2, pages 14 and 15.
Pg. 2 and 51	Tender Responsiveness Criteria: Manufacturer's/Distributorship Authorization Letter for Active Equipment (Switches and Routers)	Bidders are advised that the Manufacturer/Distributorship Authorization Letter for Active Equipment (Switches and Routers) as requested for in Pages 2 and 51 (bullet 5) under Tender Responsiveness Criteria has been amended to include Batteries and Inverters.

This clarification/addendum form part of the bidding document and is binding to all bidders. All other terms and conditions of the tender remain the same. Bidders who have already downloaded the bidding documents are required to immediately acknowledge the receipt of this clarification.

Benson Kiruja

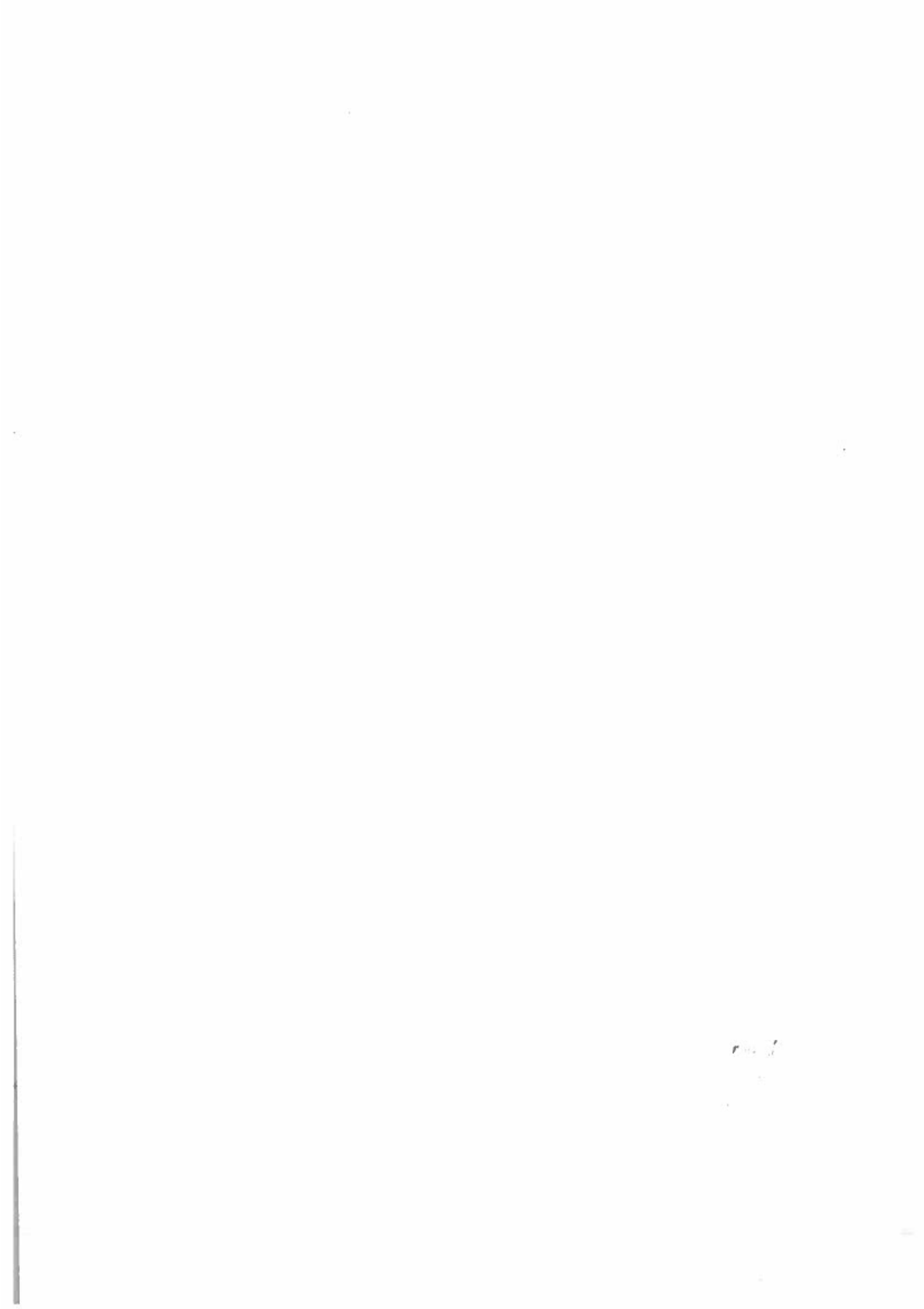
For: Deputy Commissioner - Supply Chain Management.

/SAM/



Tulipe Ushuru Tujitegeme!

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Annex 1: REVISED SPECIFICATIONS
MINIMUM TECHNICAL SPECIFICATIONS FOR KRA SHIMONI JETTY FUEL STATION ICT
INFRASTRUCTURE SET UP

INSTRUCTIONS TO BIDDERS

1. Bidders **MUST** fill all the minimum technical specifications documents. Only bidders with the relevant experience will be considered.
2. Bidders are required to quote for Genuine Products which are internationally recognized and mature brands.
3. Bidders **MUST** provide substantive responses **FOR ALL FEATURES** irrespective of any attached technical documents. Use of **YES, NO, TICK, BLANK/EMPTY SPACES, COMPLIANT ETC** will be considered non-responsive.
4. Bidders **MUST** append official company stamp and authorized signature on all attached technical data sheets.
5. Bidders are encouraged to undertake a site survey to understand the requirements and the scope of works. However, this is NOT a mandatory requirement.
6. The station comprises of 2 (two) Forty feet containers separated by a distance of approximately 15 meters. See the attached Schematic Diagram showing the office plan layout.
7. All the data points/Power outlets will require to be well labelled with Printed labels.
8. The successful bidder is required to prepare drawings/ Schematic Diagram of the installed service and submit it during site handover/ commissioning.

MINIMUM TECHNICAL SPECIFICATIONS FOR SHIMONI JETTY LAN KEY COMPONENTS

TABLE 1: Technical Specification for Router (Qty=2)

Features	Minimum Requirements	Bidder's response
1. General Descriptive Requirement	Integrated Services Router (ISR) that delivers highly secure data, voice, video, and application service.	
2. Model/Brand	Internationally recognized tested mature brand/model. (bidder must specify brand ,model and series) The device MUST not be a product that has/is reaching end of life support/end of sale.	
3. Processor	High-performance multi-core processors that supports high-speed WAN and multiple concurrent services.	
4. DRAM	512 MB, expandable to 8GB	
5. Flash modules	Internal : at least 2GB, upgradeable to 8GB External : at least 8GB, upgradeable to 32GB	
6. Onboard LAN standards	At least three (3) Integrated WAN or LAN 10/100/1000 Ports that support up to 2Gbps + performance and with at least 200Mbps encrypted throughput	
7. Interface card slots	IEEE 802.3 CSMA/CD or Ethernet IEEE 802.3u 100Mbps(Fast Ethernet)	
8. Software IOS release	The router must come with a 32-channel PVDM module Should be delivered with the latest version and supported IOS release running capable of supporting Gigabit Ethernet EHWIC. The provided IOS MUST be installed with the initial product activated license that supports advanced IP services i.e. Data, Unified Communications and Security (SEC).	
9. SD-WAN Support	The router MUST be supplied with IOS that has full support for SD-WAN technology	
10. Remote Management Protocol	Support SNMP 3, HTTP, SSH-2	
11. Module support	Network interface modular slots PVDM slots USB support	

Features	Minimum Requirements	Bidder's response
12. Security	Firewall software support Secure Sockets Layer support Network Admission control support Intrusion prevention system support Support Identity management using AAA and PKI	
13. VPN support	VPN hardware acceleration, DES, 3DES, AES128, AES192 and AES256, support IPSEC Pass-thru	
14. Transmission mode	Full/half duplex	
15. Power integration	In-line PoE	
16. Interfaces	Universal-Serial-Bus (USB)-Based Console Access port with its console cable 1 USB port	
17. Power input	240 V AC, 50 Hz	
18. Voice Protocols	The router MUST be supplied with support for voice protocols such as SIP per RFC 3261, RTP/RTCP for voice delivery	
19. Voice Support	The router MUST be supplied with support for G 711 u-law or A-Law, G 723.1, G 729 AB	
20. Warranty	The equipment must be supplied with a One (1) year manufacturer's warranty on parts, labour and software	
21. Support	The equipment must be supplied with three (3) years manufacturer's premier technical support services including: Accelerated hardware replacement options, Operating system updates, Access to Manufacturer's technical assistance team, Online troubleshooting / support tools and proactive problem diagnosis services.	

TABLE 2: Minimum Technical Specifications for 24-PORT Access Switch (Qty=2)

Feature	Minimum Specification	Bidder's response
1. General Descriptive Requirement	Enterprise standalone, High-density, High performance, Gigabit Ethernet switch. Layer 2 switching and basic layer 3 routing to be supported. The switch MUST provide a seamless integration with the existing KRA network.	
2. Model and Technology	Mature internationally recognized brand, in existence for at least 10 years (bidder must specify brand, model and series). The device MUST not be a product that has/is reaching end of life support/end of sale in two years' time.	
3. Network Ports	24 PoE+ Ethernet 10/100/1000 ports, 4 x 1 Gigabit Ethernet with SFP uplink ports.	
4. Routing and Layer 3 Features	Must support Advanced Layer 3 switching (IPv4 and IPv6) features, advanced quality of service (QoS), rate limiting, Access Control Lists (ACLs) and routing protocols like EIGRP & OSPF	
5. Compliance	IEEE 802.1Q, 802.1p, 802.3x Ethernet: IEEE 802.3, 10BaseT, and 10BaseFL PoE+ Fast Ethernet: IEEE 802.3u, 100BaseTX, 10BaseFX Gigabit Ethernet: IEEE 802.3z. Compatible with different vendors Network equipment e.g. 3com, Nortel, Cisco.	
6. Network Monitoring	Compliant with IEEE SNMP standards. Capable of monitoring the Network up to Node Level. Management by a well-known and developed proprietary OS.	
7. Spanning Tree Protocol Technology	Support for Spanning Tree Protocol Technology	
8. VLAN support	Compliant with IEEE 802.1Q standards - should support VLANs/Network Segmentation.	
9. Security	Port Level Security e.g. Port Filtering, Access Control Lists, Policy based routing etc. Management by a recognized proprietary operating system.	
10. Operation	Auto negotiating on all ports automatically selects half- or full-duplex transmission mode to optimize bandwidth. Can support converged wired and wireless access.	

		Per-port broadcast, multicast, and unicast storm control prevents faulty end stations from degrading overall systems performance.	
11.	Warranty	The equipment must be supplied with a One (1) year manufacturer's warranty on parts, labour and software	
12.	Support	The equipment must be supplied with three (3) years manufacturer's premier technical support services including: Accelerated hardware replacement options, Operating system updates, Access to Manufacturer's technical assistance team, Online troubleshooting / support tools and proactive problem diagnosis services.	

TABLE 3: Minimum Technical Specifications for UTP Ethernet Cable (Qty=8 rolls)

	Feature	Minimum Requirements	Bidder's Response
1.	Brand	Internationally recognized, matured brand, in existence for at least 10 years (bidder must specify brand)	
2.	Category	CAT 6A UTP	
3.	Size	4-Pair solid, Gauge: 23 AWG	
4.	Operating frequency	500 MHZ	
5.	Standards	TIA/EIA 568 A/B, ISO/IEC 11801	

TABLE 4: Minimum Technical Specifications for Data Outlets (Qty=20)

	Feature	Minimum Requirements	Bidder's Response
1.	Brand	Internationally recognized, matured brand, in existence for at least 10 years (bidder must specify brand and model)	

Feature	Minimum Requirements	Bidder's Response
2. Assembly	CAT 6 A double angled RJ45 outlet modules installed on Single gang face plates	
3. Contact resistance	30 mΩ	
4. Insulation Resistance	500 MΩ	
5. Current rating	1.5 A PoE , PoE+	
6. Contact Materials	Plated phosphor bronze, stainless steel	
7. Plug compatibility	Compatible with RJ45 (8-position) plugs Should also be backward compatible to CAT 6	

TABLE 5: Minimum Technical Specifications for Metallic Trunking (Qty=28)

Feature	Minimum Requirements	Bidder's Response
1. Material	Metal trunking with two compartments, plus corresponding knock outs to house the required Clean Power outlets and Data Points	
2. Size	200mm x50 mm in Lengths of 2-4 Meters	
3. Gauge	Heavy duty	

TABLE 6: Minimum Technical Specifications for Copper Patch Panel (Qty=2)

Feature	Minimum Requirements	Bidder's Response
1. Brand	Internationally recognized brand	
2. Port Density	24 ports	
3. Cable Management	Rear Cable management bar installed	
4. Labels	Printable labels MUST be available	
5. Wiring	T568A/T568B compliant and easy to read	

Feature	Minimum Requirements	Bidder's Response
6. Contact materials	Plated phosphor bronze, stainless steel	
7. Mounting	CEA-310-E 19-inch (482.6 mm) rack	
8. Current rating	1.5 A	
9. Contact resistance	20 mΩ	
10. Insulation resistance	500 MΩ	
11. Panel material	18 gauge cold rolled steel, black e-coated	
12. Category and compatibility	CAT6A and downward compatible with CAT5e/CAT6	

TABLE 7: Technical Specifications for Rack-mount UPS (Qty=1)

No	Feature	Minimum Requirement	Bidders Response
	Brand	Internationally recognized, matured brand	
Output			
1.	Output Power Capacity	865 Watts / 1500 VA	
2.	Max Configurable Power	865 Watts / 1500 VA	
3.	Nominal Output Voltage	±30V	
4.	Output Voltage Distortion	Less than 5% at full load	
5.	Output Frequency (sync to mains)	47 - 53 Hz for 50 Hz nominal, 57 - 63 Hz for 60 Hz nominal	
6.	Topology	Line interactive	
7.	Waveform Type	Stepped approximation to a Sine wave	

No	Feature	Minimum Requirement	Bidders Response
8.	Output Connections	Four (4) IEC 320 C13 Two (2) IEC jumpers	
Input			
9.	Nominal Input Voltage	230V	
10.	Input Frequency	50/60 Hz +/- 3 Hz (auto sensing)	
11.	Input Connections	IEC-320 C14	
12.	Battery Type	Maintenance free sealed lead-acid with suspended electrolyte, leak proof	
13.	Input voltage range for main operations	186 - 284V	
14.	Input voltage adjustable range for mains operation	175 - 297V	
15.	Typical recharge time	8 hour(s)	
16.	Typical Backup Time at Half Load	20.9 minutes (432.5 Watts)	
17.	Typical Backup Time at Full Load	7.6 minutes (865 Watts)	
Communications & Management			
18.	Interface Ports	DB-9 RS-232, 10/100 base-T	
19.	Control panel	LED status display with On Line : On Battery : Replace Battery and Overload indicators	
20.	Audible Alarm	Alarm when on battery : distinctive low battery alarm : configurable delays	
Surge Protection and Filtering			
21.	Surge energy rating	Joules	
22.	Filtering	Full time multi-pole noise filtering : 5% IEEE surge let-through : zero clamping response time : meets UL 1449	

No	Feature	Minimum Requirement	Bidders Response
23.	Data Line filtering	RJ-45 modem/Fax/DSL/10-100 Base-T protection	
24.	Standard Warranty	2 years repair or replace	
25.	Accessories	Power cords (at least 1.83M), CD with software, Documentation CD, Rack Mounting brackets, Smart UPS signaling RS-232 cable, USB cable, User Manual	

TABLE 8: Technical Specifications for Network Cabinet (Qty=1)

	Feature	Minimum Requirements	Bidders Response
1.	Brand	Internationally recognized, matured brand	
2.	Form Factor	42 U floor standing standard data cabinet	
3.	Construction	Front door: with glass window Rear door: high-flow mesh Both doors keyed locks for security Heavy duty solid sides Installed axial fan kits	
4.	Power outlets in the cabinet	4-Way universal PDU 3A/220 - 240 V AC earthed and fused with shutters	
5.	Cable manager	Installed with cable manager for both horizontal/backbone cabling and patch cords.	

TABLE 9: Technical Specifications for UTP Patch Cords

	Feature	Minimum Requirements	Bidder's response
1.	Brand	Internationally recognized, matured brand, in existence for at least 10 years, must be of the same specifications with the Ethernet UTP cable (bidder must specify brand)	
2.	Category	CAT 6A 4-pair Ethernet cable	
3.	Length & Qty for each	3M Qty=30 5M Qty=10	

Feature	Minimum Requirements	Bidder's response
	1 M Qty = 40	
4. Boot Color	With colour matching jacket / boot to labelling on the faceplates	

TABLE 10: Minimum Technical Specifications for Installation, Testing, Commissioning, Labelling, Drawings and Documentation

No	Feature	Minimum Requirements	Quantity	Bidder's Response
1.	Labelling	All the data points, power points and cables will require to be well labelled with Printed labels and drawings clearly presented.	Lot	
2.	Cabling	The cables should run from the patch panel at the duct to the modules at the faceplate through the metal trunkings. The cabling should be neatly done and managed using 10 cable managers in the patch panel.	Lot	
3.	Delivery schedule	Contract period is one(1) month	1 Month	
4.	Labour	The labour costs should include the installation of LAN, clean power, raw power cabling and necessary accessories.	Lot	
5.	Testing and Commissioning	The bidder is expected to carry out professional test and provide results both in printed and in soft copy. A joint test and commissioning will be carried out by KRA and the contractor. Thereafter, KRA will issue the user acceptance certificate.	Lot	
6.	Warranty	One (1) year warranty for workmanship and defect liability period.	One(1) year	

MINIMUM TECHNICAL SPECIFICATIONS FOR SHIMONI JETTY POWER BACKUP SYSTEM AND CLEAN POWER CABLING KEY COMPONENTS

TABLE 1: Minimum Technical Specifications for supply, delivery and installation of 8 KVA power backup system

	Feature	Minimum Specifications	Bidder's Response
1.	Inverter brand & Model	Internationally recognised and Mature brand that has been in existence for the last five years.	
2.	Design	Inbuilt Automatic Charger and Inverter and Auto Start feature.	
3.	Mounting	Wall mountable.	
4.	Output Power (VA/W)	At least 8,000 VA / 6,500 WATTS	
5.	Peak Power(W)	16,000 watts	
6.	Zero load Power	Not more than 50 Watts	
7.	DC Input Voltage (Nominal/Range)	48VDC	
8.	Input Power voltage	230 volts single phase	
9.	AC Voltage/Frequency (nominal) Output	230VAC/50Hz	
10.	Output Wave	Pure Sine wave	
11.	Maximum Current (A) Charging	110 Amps	

12.	Programmable Relay	DC Under Voltage or Genset Start/Stop Function, AC rating: 230V/4ADC Rating: 4-A upto 35VDC, 1A upto 60VDC	
13.	VE Bus Communications Port	remote monitoring and system integration with ON/ OFF capabilities	
14.	Efficiency at Normal Mode (%)	At least 96 %	
15.	Safety Emission(Electromagnetic Compatibility)	Must conform to Emission, Immunity EN 55014-1, EN 55014-2, EN-IEC 61000-3-2, EN-IEC61000-3-3, IEC61000-6-1, IEC61000-6-2, IEC61000-6-3 standards	
16.	Unit Gross Weight (Kgs)	Not more than 50 kgs	
17.	Inverter/Charger Dimensions(HxWxD)	Not more than 470x350x280 mm	
18.	External wall mountable change over switch-COS (QTY 1)	4 Pole Change Over Switch 100A with knock out on at least 2 sides and sufficient enclosure to manipulate cables. With 3 switch positions (ON, OFF, BYPASS positions) Internationally recognized, mature brand according to BS EN 60947-3.	
19.	Input and output MCBS for the inverter	Double Pole Complete Mobs 63 A with enclosure-Merlin Gerin standard/Multi 9 or equivalent-(QTY 2)	
(i)	Battery brand & Model	Must be Internationally recognised mature brand that has been in existence for the last 5 years. Proof/certificate needed.(Attach)	
(ii)	Battery type	Must be Maintenance free, Sealed Lead Acid Gel Battery.(Attach brochures)	
(iii)	Quantity	At least Sixteen (16) pcs	
(iv)	Connecting cables and lugs	75 mm square flex connecting cables for all the batteries and associated lugs	
(v)	Battery cabinet	Supply prefabricated metal bars stand/cage for holding the above 16 batteries in safe and secure manner	
(vi)	Construction Design.	Non-Spill able, Fire resistant ABS containers and covers	
(vii)	Connectors design	Fasteners type (8 mm standard screw bolts)	

(viii)	Power Rating	Voltage:12v Ampere Hours: at least200AH	
(ix)	Compatibility	Must be Heavy Duty Cycle type	
(x)	Usage	UPS indoor as per standards CE / UL / ISO9001 / ISO14001	
(xi)	Size/ dimensions (in mm)	Not more than : 500 mm*200 mm*290 mm (L*W*H)	
(xii)	Safety	Safety valve installation for explosion proof Safety valve: EPDR	
(xiii)	Performance standards	High quality and high reliability.(proof/certificate required)	
(xiv)	Discharge features	*Exceptional deep discharge recovery performance. * Low self-discharge characteristic.(Attach brochures)	
(xv)	Charge Voltage(25 °C)	Cyclic use: 14.4-15V (30mV/ °C), max. Current: 50A Float use :13.6-13.8V (20mV/ °C)	
(xvi)	Internal Resistance	At Full charged not more than at 25 °C: 3.5 Ω	
(xvii)	Self-Discharge	2% of capacity declined per month at (25°C)	
(xviii)	Expected designed Floating Life	At least Five (5) years.(Attach brochures)	
(xix)	Standard Warranty (on Batteries and Inverter)	At least (3) years on site repair or immediate replacement.	
21.	Labour	The labour costs should include the installation of LAN, clean power, raw power cabling and necessary accessories.	
22.	Testing and Commissioning	The bidder is expected to carry out professional test and provide results both in printed and in soft copy. A joint test and commissioning will be carried out by KRA and the contractor. Thereafter, KRA will issue the user acceptance certificate.	
23.	Works Warranty	One (1) year warranty for workmanship and defect liability period.	

TABLE 2: Minimum Technical Specifications for supply, delivery and installation of Clean Power Cabling

No	Feature	Minimum Requirements	Quantity	Bidder's Response
1.	Clean power outlet Sockets	Double Socket Power Outlets complete with Patrice box-30 amps- UK Standard	Eighteen (18)	
3.	Clean power consumer units	4 Way complete Consumer Unit with 32 A breakers- Merlin Gerin standard /Multi 9 or equivalent	Two (2)	
4.	Power cables	3 Core 4.0 mm Square Flex Cable	Nine (9) Rolls- 100 metres	
5.	PVC Conduit	PVC conduit for cables to cover the distance between the two (2) 40 Feet containers. Dimensions: 6 Inches Diameter, 5mm thickness.	Approximately 16 metres	

ANNEX 2: REVISED PRICE SCHEDULE

LOT 1: BILL OF QUANTITIES FOR SHIMONI JETTY LAN (40-PORTS LAN)

NO.	Item Description	QTY	Unit cost	Total Cost
1	Router (including Voice license)	2		
2	Access switch - 24 port PoE	2		
3	UTP cables: Cat 6A Premium 4-pair UTP cable rolls of 305m	8		
4	Data points: 200mm x50 mm Single gang face plates installed with double angled Cat 6A RJ45 outlet modules	20		
5	Trunkings: 250mm x50 mm Partitioned Metal trunks in Lengths of 2.4 Meters Length	28		
6	Patch Panels: Cat 6A patch panel , T568A/B, 24-port	2		
7	1.5 KVA UPS	1		
8	42U Network Cabinet	1		
9	5M Cat 6A UTP patch cord	10		
	3M Cat 6A UTP patch cord	30		
	1M Cat 6A UTP patch cord	40		
10	LAN Installation, testing, commissioning, labelling, drawings and documentation	Lot		
TOTAL (INCL. 16% VAT)				



**LOT 2: Power backup system (8KVA 12 hours) Solution:
BILL OF QUANTITIES FOR SHIMONI JETTY POWER BACKUP SYSTEM SOLUTION AND CLEAN POWER
CABLING (36-Power Socket Outlets).**

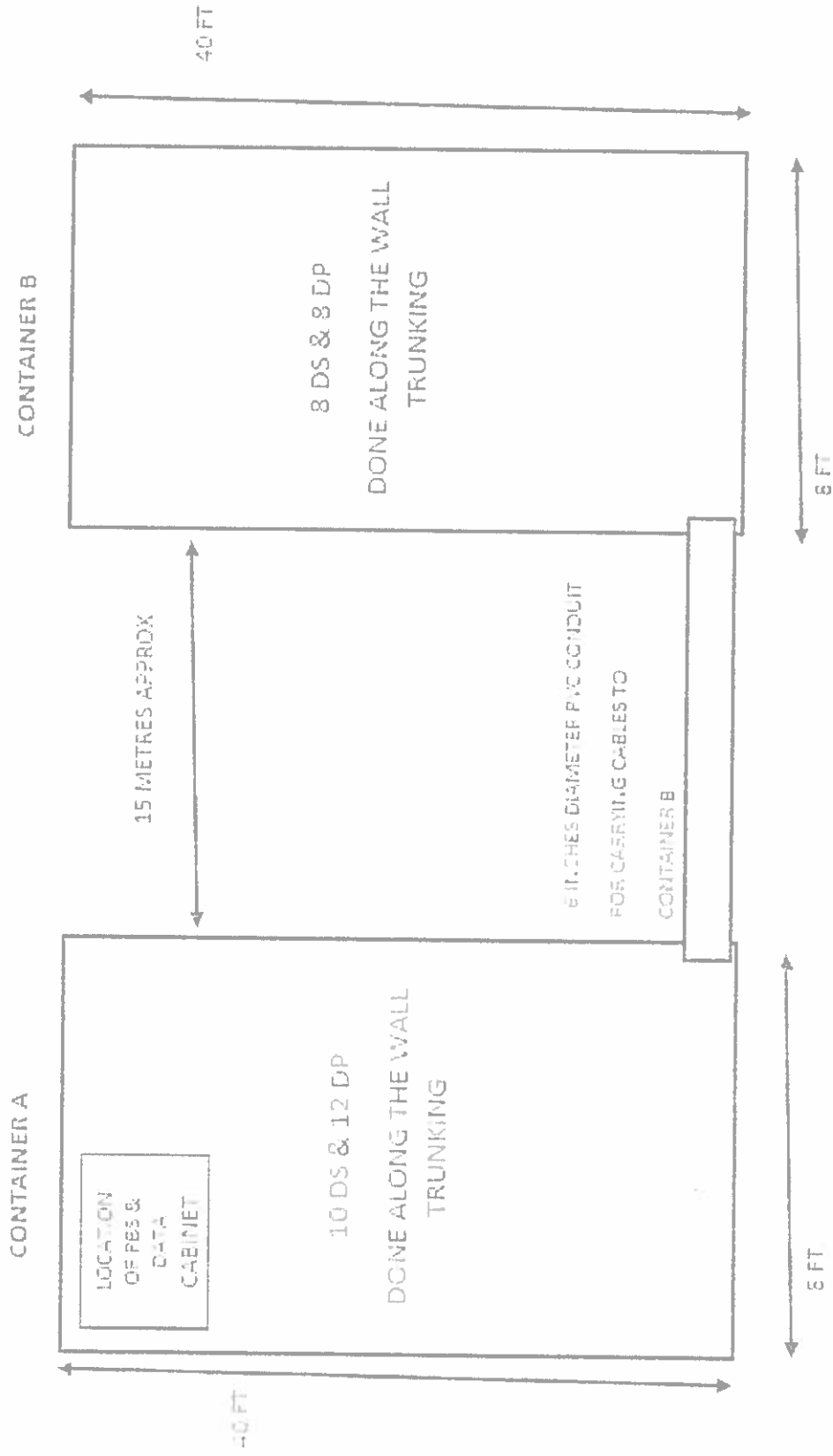
No.	Item Description	Qty	Unit Price	Total Cost
1	Supply, delivery and installation of 8 KVA power backup system solution: <i>The System solution includes Inverters, Batteries, all accessories, Installation, Testing and commissioning.</i>	Lot		
2	(i) 3 Core 4.0 mm Square Flex Cable (Rolls of 100 metres each)	Nine (9) Rolls		
	(ii) 4 Way complete Consumer Unit	Two(2)		
	(iii) Double Socket Power Outlets	Eighteen(18)		
	(iv) Clean power cabling Installation, testing, commissioning, labelling, drawings and documentation	Lot		
	(v) PVC conduit (approximately 16 metres)	Lot		
TOTAL (INCL. 16% VAT)				

Grand Total (to be carried to Form of Tender)	Total (Lot 1) + Total (Lot 2)
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Bidder Signature: _____

Official Stamp: _____

KRA SHIMONI JETTY OFFICE PLAN LAYOUT FOR ICT REQUIREMENTS



LEGEND

- 1 DS = DOUBLE/TWIN ELECTRICAL SOCKET OUTLET
- 2 DP = DATA POINT DOUBLE
- 3 PB5 = POWER BACKUP SYSTEM

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