Kenya Power

Our Ref. KP1/9AA-2/PT/32/ITT/14-15   *9ᵗʰ March 2015*

M/s

Dear Sir,

ADDENDUM (I) - KP1/9AA-2/PT/32/ITT/14-15 FOR THE SUPPLY, INSTALLATION AND COMMISIONING OF NETWORK OPERATIONS CENTER (NOC)

The following amendments are made to the specified provisions of the Tender document *KP1/9AA-2/PT/32/ITT/14-15 for the Supply, Installation and Commissioning of Network Operations Center (NOC).*

1. RELATIONSHIP WITH THE PRINCIPAL TENDER DOCUMENT

Save where expressly amended by the terms of this Addendum, the Principal Tender Document shall continue to be in full force and effect.

The provisions of this Addendum shall be deemed to have been incorporated in and shall be read as part of the principal tender document.

2. TRAINING

The equipment (Hardware and software) training period of engineers at Manufacturers premises changes from two (2) to one (1) week and number of engineers from five (5) to four (4). Factory acceptance Test will be conducted by four (4) and not (3). Local operational training will remain one week (1) for ten (10) staff. The FAT and local training will be done same week as the four (4).

15	TRAINING
	Hardware and Software training for 4 Engineers at Manufacturers premises for a minimum **one** (1) week
	Factory Acceptance Test at Manufacturers premises for **4 Officers**
	Operator training and On The Job local training for 10 staff for a minimum **one** (1) week

3. BILL OF QUANTITIES

Item No.	Description	Unit Of Measure	Quantity	Indicate Make & Type	Indicate Delivery Date
1.	Server	Piece	2		
2.	Operating System	Piece	2		
3.	NOC Database	Piece	2		
4.	NMS software	Piece	2		
5.	Desktop PC and Monitors	Piece	3		
6.	Laptop	Piece	4		
7.	Graphics User Interface (GUIs)	Piece	7		
8.	Switch	Piece	1		
9.	Local Area Network	LOT	1		
10.	Fiber cable	Meters	50		
11.	Printers	Piece	1		
12.	Furniture	LOT	1		
13.	UPS	Units	2		
14.	Cabinet	Piece	1		
15.	Installation and Commissioning	LOT	1		
16.	Training	LOT	1		
17.	Site Monitor Unit	Piece	15		
18.	Split Air Conditioning unit	Piece	2		

Table 3.1: BOQ

a. Network Monitoring Software (NMS)

The Network Operations Center (NOC) will have two servers complimenting each other. The two servers will have separate NMS installed and therefore need to include another in the Bill of Quantities (BOQ). Therefore the number of NMS licenses to be purchased has increased from one (1) to two (2) as indicated in Table 2.1 above.

b. Site Monitor Unit

A site monitor will be installed in all our Data Centers in the country to monitor operational parameters of the Data Centers and instances captured and recorded by the NMS. It will monitor environmental parameters such as temperature and humidity gauges, flood detection, liquid level and measure AC/DC voltages and currents, from a local or remote location, over an intranet or internet connection. Monitor battery voltage, battery charging current, battery discharge current for UPS batteries.

The site monitor is a rack mount device that should be able to generate alarms when a circuit is open or closed, or when a sensor reading is above or below a user defined range. Alarm notifications can be sent via SMS, Trap SNMP and displayed on a customized dashboard on the NMS and adjustable alert threshold. Site monitor shall have IP interface.

List of sites to be installed include;

	Site Name	Quantity
1.	Stima Plaza	2
2.	Electricity House – Nairobi	2
3.	Electricity House – Mombasa	1
4.	Electricity House – Kisumu	1
5.	Electricity House – Nakuru	1
6.	Nyeri Stima	1
7.	Thika	1
8.	Eldoret	1
9.	Nairobi South	1
10.	Nairobi North – Ruaraka	1
11.	Juja NCC – Comm room	1
12.	Spare	1
13.	Spare	1
	Total	**15**

Technical Specifications

16	Site Monitor	
	Housing	Rack mount
	Indicators	Alert; Power, Network link
	Sensor Pods	Room, Rack, Wireless Sensor Pods
	Power Requirements	Double power feed: (16-60) Vdc and/or (12-40)Vac, 20 VA
	Communications	- 2RS232 connections for local target communication - 10/100 Base-T communication port - GSM cellular link
	Inputs and Outputs	- 4 analog inputs +/- 60mVdc / +/- 60Vdc full range - 12 analog inputs: 0-5 Vdc - 32 Dry inputs - 16 dry outputs N/O - N/C - 4 temperature sensors inputs - 2 humidity sensors inputs - 1 flood detector input - 2 liquid-level sensor (4-20)mA inputs - 2 frequency meter inputs - 2kMH meter inputs
	Accessories	- AC measurement adapter (4 channel galvanically isolated transformer based) - DC measurement adapter (4 channel galvanically isolated dc or ac/dc based) - AC current transformer - DC current – Hall sensor - Temperature sensor - Humidity sensor - Flood sensor - internal backup battery (2-Hr) - auxiliary dc feed outputs
	Protocols	TCP/IP; HTTP; HTTPS; SMTP; SNMP v1, v2c, and v3; DHCP; DNS; Socks v4 or V5 Proxy Server; A-Link
	Management Interface	Internet Explorer v5.5 or later; Mozilla 1.3 or later; Firefox 2.0 or later; StruxureWare Data Center Expert
	Protocols	TCP/IP; HTTP; HTTPS; SMTP; SNMP v1, v2c, and v3; DHCP; DNS; Socks v4 or V5 Proxy Server; A-Link
	Operating Environment	Temperature: 0 - 50C (32 – 113F); Relative Humidity: 10-95% (non-condensing);
	Warranty	Two Years

c. Split Air Conditioning Unit

There will be need for cabinet to be enclosed for reasons of environment control and Noise reduction. Enclosure will be provided by Kenya Power. A split air conditioning unit will be supplied and installed on site.

Technical Specifications

17	**Split Air Conditioning Unit**	
	BTU Performance	24,000/24,500
	Cooling EER (BTU/Watts)	9.4/9.4
	Dehumidification (Pts/Hr)	7.8
	Dry Air Flow (CFM)	590
	dBA Level (Indoor/Outdoor)	65/67
	Est. Cooling Area (Sq. Ft.)	1560
	Energy Star	Yes
	Thermostat Control	Thermistor
	Air Direction	4-WAY
	Remote Control	Yes
	Energy Saver Function	Yes
	Programmable Timer	24 Hrs, On/Off
	Fan Speed: Cooling	3
	Fan Only Speed	3
	Compressor	Rotary
	Indoor Fan Type	Blower
	Type air Discharge	Top
	Outdoor Vent/Exhaust	Yes
	Classic Type	Slide-In-Out
	Voltage	240/50 Hz
	Watts (cooling)	2600
	Rated Amps	11.3
	Cable	200m Cable (from consumer unit to Split A/C) comes with 30A MCB and its associated rated AVS
	Extension cords	Three (3) pieces of 3m 4 plug extension cord
	Warranty	5 Years Parts and Labor

4. Clarifications sought from interested bidders during pre-bid.

i. Question: What is the total number of Service Desk users in your environment?
Answer: we have a service desk already and NOC to be integrated into the existing one.

ii. Question: What is the maximum number of Administrators (named users) do you require to be supported by the Service Desk solution?
Answer: we said in pre-bid at least 6 admins are expected and 10 to be trained. Also it can support 50 users who can query the system at any given time remotely or locally.

iii. Question: What is the maximum number of Helpdesk do you require to be supported by the solution at a given time?
Answer: we shall have only three positions at the NOC and rest are remote viewers only.

iv.   Question: What is the Total Number of Change Management Users?
      Answer: The three admins in part 2 above to handle all these

v.   Question: What is the Total Number of Asset & Configuration Management Users?
      Answer: The three admins in part 2 above to handle all these

vi.   Question: Number of servers and applications
      Answer: Kenya Power will be looking to monitor a maximum of 3,000 network devices. Some of the devices have more than two instances. The number of instances should be equal to number of nodes to be monitored. Thresholds for monitoring of servers, radio, routers and other devices will be agreed upon during time of implementation.

vii. Question: Number of cabinet?
      Answer: The minimum number of cabinets is one (1) as in tender specification but if solution needs more, more cabinets of similar specifications can be added.

viii. Question: Is Fiber cable indoor or outdoor?
      Answer: The fiber cable is in-door.

ix.   Question: Under **NOTE**, point no. 2, on Pg. 40 of the tender document, what is meant by backup system?
      Answer: Replace words **backup system** with **NOC**

x.   Question: What types of servers need to be managed; number of cores and types of applications running on the servers?
      Answer: The issue of types of servers, operating systems, number of CPUs, number of CPU cores etc. will depend on licensing of specific applications for the NOC. Kenya Power NOC will currently concentrate on Network Visibility only and later add the additional non network objects such as server OS, databases. The Applications and server types have been listed on the tender document under server and application specifications.

xi.   Question : Are there any existing NOC at Kenya Power?
      Answer: This is the first NOC Kenya Power is purchasing so there will be no need for any migration. All devices to be monitored will be Automatic discovered of which Kenya Power will make SNMP compliant and SNMP is not vendor dependent. This includes Call managers (Cisco) and Radio managers (Radwin and Cambium/Motorola).

5. PRE-BID MEETING AND SITE VISIT

The Pre-bid meeting held on Thursday, March 05, 2015 at Stima Plaza, Auditorium and a site visit at Stima Mall was indicated MANDATORY.

The revised status for the Pre-bid and Site visit have been deemed **NON-MANDATORY** as the tender is public and welcomes international bids.

6. TENDER CLOSING DATE

The tender closing date has not been changed and still remains on *Tuesday 17th March 2015* at **10.00a.m**. All the other terms and conditions remain as per the tender document.

All the other terms and conditions remain as per the tender document.

Yours faithfully,
For: KENYA POWER & LIGHTING COMPANY LIMITED.

BERNARD K. NGUGI
Ag. GENERAL MANAGER, SUPPLY CHAIN