KENYA EDUCATION NETWORK

(KENET)

University of Nairobi,

Jomo Kenyatta Memorial Library,

P.O Box 30244 – 00100, Nairobi

Request for Proposal

for

SUPPLY AND INSTALLATION OF WIFI ACCESS POINTS AND ASSOCIATED ACCESSORIES AT SELECTED KENET MEMBER INSTITUTIONS

1. Background

The Kenya Education Network Trust (KENET) (http://www.kenet.or.ke) is a not-for-profit membership organization that is licensed by the Communications Commission of Kenya as an Alternative Network Facility Provider. KENET is the National Research and Education Network (NREN) of Kenya and provides broadband Internet services to the higher education and research community in partnership with other licensed telecommunications operators. It also conducts ICT in education research and pilots innovative learning technologies in collaboration with faculty and students in member institutions.

KENET intends to select a contractor(s) to supply and install WiFi Access Points to hostels in University of Nairobi Main campus, Kenyatta University and JKUAT University. KENET invites the prospective bidders to submit bids for the following LOTs:

i. LOT 1: Supply of Access Points and Network Switches
ii. LOT 2: Supply of Network Cabinets, Patch Cord, AVS and UPSES
iii. LOT 3: WiFi Installation at University of Nairobi Main Campus Hostels
iv. LOT 4: WiFi Installation at Kenyatta University Hostels
v. LOT 5: WiFi Installation at JKUAT Hostels

KENET shall enter into a contract with the successful bidders for the implementation of the project. The award shall be on per LOT basis.

NB: Quote shall be in Kenya Shillings

2. Schedule of Events

The following is a tentative schedule that applies to this RFP. Changes will be communicated by e-mail to all invited bidders.

- Issuance of RFP March 6th, 2020

- Pre-bid meeting for UoN March 10th, 2020 -09.00 a.m local time

- Pre-bid meeting for KU and JKUAT March 12th, 2020 -09.00 a.m local time

- Mandatory Site Visit for UoN: **1st Visit** March 10th, 2020 10:00 a.m -16:00 p.m **2nd Visit** March 11th, 2020 10:00 a.m -16:00 p.m local time

- Mandatory Site Visit for KU and JKUAT: **1st Visit** March 12th, 2020 10:00 a.m -16:00 p.m **2nd Visit** March 13th, 2020 10:00 a.m -16:00 p.m local time

- Deadline for Technical Questions/Inquiries Due March 18th, 2020 17:00 p.m local time

- Response to Questions March 20th, 2020 17:00 p.m local time

- Proposal Submission Deadline March 27th, 2020 11:00 a.m local time

- Evaluation Completion April 9th, 2020

- Estimated Award Notification April 15th, 2020

3. Communication

Verbal communication shall not be effective unless formally confirmed in writing by a specified procurement official in charge of managing this RFP process. In no case shall verbal communication govern over written communication.

Inquiries, questions, and requests for clarification related to this RFP are to be directed in writing to:

The Procurement

E-mail: procurement@kenet.or.ke

4. Technical Requirements

4.1. Solution Requirement

KENET is requesting for the following:

Supply of Access Points, Outdoor Cables, Fiber and UTP patch cords, Network Switches and Cabinets and Installation of WiFi Access Points to University of Nairobi, Kenyatta University and JKUAT Hostels.

LOT 1: SUPPLY OF ACCESS POINTS AND NETWORK SWITCHES

Table 1:List of Access Points and Network switches

Part Number	Description	Number	Unit Cost	Total Cost	Delivery Locations
UAP-AC-M-PRO	Ubiquiti Outdoor Access Point complete with mounting brackets and POE injector	447			1. 195 APs to Kenyatta University 2. 189 APs to University of Nairobi Chiromo Campus 3. 53 APs to JKUAT Main Campus 4. 10 APs to KENET offices at University of Nairobi
UAP-AC-PRO	Ubiquiti Indoor Access Point complete with mounting brackets and POE injector	44			1. 20 APs to JKUAT Main Campus 2. 19 APs to University of Nairobi Chiromo Campus 3. 5 APs to KENET offices at University of Nairobi
UAP-AC-HD	Indoor/outdoor, high-performance Access Point complete with mounting brackets and POE injector	11			9 APs to University of Nairobi Chiromo Campus 2 APs to KENET offices at University of Nairobi
US-24-250W	Ubiquiti UniFi Switch PoE+ 24 (250W)	100			1.58 switches to Kenyatta University 2.22 switches to University of Nairobi Chiromo Campus 3.12 switches to JKUAT Main Campus 4.8 Switches to KENET offices at University of Nairobi
ES-16-XG	Ubiquiti 16 ports 10G aggregation switch	8			University of Nairobi Chiromo Campus
UF-SM-1G-S	Optical SFPs 1310 nm for Single mode,1 Gb/E	116			KENET offices at University of Nairobi
UF-SM-10G-S	Optical SFPs 1310 nm for Single mode,10 Gb/E	12			KENET offices at University of Nairobi

LOT 2: SUPPLY OF NETWORK CABINETS, PATCH CORD,AVS AND UPSES

Table 2: List of Network Cabinets, Patch cords and AVS

Part Number	Description	Number	Unit Cost	Total Cost	Delivery Locations
Network Cabinets	1.6U Wall Mount Cabinet – 600mmx600mm 2. **Doors**: Perforated or glass front door 3.**Side Panels**: Steel side panels with release handles and locks 4.**Top Panels** :2 & 4 fan tray – Cabinets with glass doors only, multiple entry knockouts 5.**Mounting Rails**: Front & Rear mounting rails 6. At least 5-port Horizontal In-cabinet power points (PDUs)	73			20 cabinets University of Nairobi Chiromo Campus 53 Cabinets Kenyatta University
Cat 6 Outdoor Cables	Ubiquiti TOUGH Cable – PRO; Outdoor Shielded Ethernet Cable	90 Rolls			1. 23 rolls to Kenyatta University 2. 42 rolls to University of Nairobi Chiromo Campus 3. 23 rolls to JKUAT Main Campus
SC-LC Fiber Patch Cords	3M Single Mode SC-LC Fiber Patch Cords	100			To KENET offices at UoN
3M UTP Patch Cables	3M CAT 6 UTP	200			To KENET offices at UoN
UPSes	700VA UPS	53			53 UPSes to Kenyatta University
AVSes	Sollatek AVS30	20			20 AVSes to UoN Main

LOT 3: WIFI INSTALLATION AT UNIVERSITY OF NAIROBI MAIN CAMPUS HOSTELS

4.2. Detailed Scope of Works

1. The Scope of Works is to Install a total of 219 Indoor and Outdoor Access Points in University of Nairobi Main campus hotels. A mandatory site survey will be required to establish the location of the Access Points. KENET shall supply all the Access Points and the required accessories for mounting the Access Points.

2. The Access points shall be installed on 8M ground mounted poles and on wall mounted poles as shown in *Table 3,Table 4* and *Table 5* on proposed Access Points locations. KENET shall supply and install the 8M poles prior to Access points installation while the bidder is supposed to supply and install the poles for wall mounting of the Access Points. All bids must comply with all sections of this RFP and the products and services to be considered.

3. The installation must be neatly done.

4. Cabling of the Access Points from the mounted location to the Power Over Ethernet (PoE) injectors and/or PoE switches located in designated rooms within each Hall of Residence. **Bidders are required to provide the RJ45 connectors and crimp the same**.

5. Conduits will be provided for entry of the cables to the designated rooms that will host the PoE switches and Injectors.

6. The successful contractor will submit   as built drawings for the location of the Access points.

Table 3: Access Points mounting type-Lower Statehouse

Location	AP Type	Number	Mounting Type	Proposed Location
Hall 1	UAP-AC-M-PRO- Outdoor Access Point	4	Pole Mounted	*2 APs at the front of the Hall *2 APs at the back of the Hall
	Ubiquiti Unifi AC HD (UAP-AC-HD)- Outdoor High-Density Access Point	6	Pole Mounted	*4 APs for Graduation Square *1 AP at the swimming Pool *1 AP at the CCU
Hall 2	UAP-AC-M-PRO- Outdoor Access Point	4	Pole Mounted	*2 APs at from of the Hall *2 Aps at back of the Hall
	UAP-AC-PRO-Indoor Access Point	3	Ceiling Mounted	*1 AP for Kitchen 1(K1) Mess *2 Aps for K1 evening classrooms
Hall 3	UAP-AC-M-PRO- Outdoor Access Point	6	Pole Mounted	*3 APs at front of the Hall *3 Aps at back of the Hall
	UAP-AC-PRO-Indoor Access Point	1	Ceiling Mounted	*1 AP for the TV room
Hall 10	UAP-AC-M-PRO- Outdoor Access Point	6	Pole Mounted	*3 APs at front of the Hall *3 Aps at back of the Hall
Hall 11	UAP-AC-M-PRO- Outdoor Access Point	6	Pole Mounted	*3 APs at front of the Hall *3 Aps at back of the Hall
Hall 15	UAP-AC-M-PRO- Outdoor Access Point	2	Pole Mounted	*2 APs facing the Hall
Graduation Square	Ubiquiti Unifi AC HD (UAP-AC-HD)- Outdoor High-Density Access Point	4	Pole Mounted	*2 Aps at the podium *2 Aps at within the graduation square
Swimming Pool	UAP-AC-M-PRO- Outdoor Access Point	1	Pole Mounted	*1 AP at the Swimming Pool
ADD	UAP-AC-M-PRO- Outdoor Access Point	2	Pole Mounted	Within ADD
TOTAL		**45**		

Table 4: Access Points mounting type-Upper Statehouse

Location	AP Type	Number	Mounting Type	Proposed Location
Hall 4	UAP-AC-M-PRO- Outdoor Access Point	6	Pole Mounted	*3 APs at front of the Hall *3 Aps at back of the Hall
Hall 5	UAP-AC-M-PRO- Outdoor Access Point	6	Pole Mounted	*3 APs at front of the Hall *3 Aps at back of the Hall
Hall 6	UAP-AC-M-PRO- Outdoor Access Point	16	Pole/Wall Mounted	Around the hostel
Hall 7	UAP-AC-M-PRO- Outdoor Access Point	16	Pole/Wall Mounted	Around the hostel
Hall 8	UAP-AC-M-PRO- Outdoor Access Point	16	Pole/Wall Mounted	Around the hostel
Hall 9	UAP-AC-M-PRO- Outdoor Access Point	14	Pole/Wall Mounted	*6 APs for interior section *8 APs for exterior section
	UAP-AC-PRO-Indoor Access Point	1	Ceiling Mounted	1 AP for Students Center
	Ubiquiti Unifi AC HD (UAP-AC-HD)- Outdoor High-Density Access Point	1	Pole Mounted	1 AP for Open area for students convergence
Mamlaka A	UAP-AC-M-PRO- Outdoor Access Point	18	Pole/Wall Mounted	*3APs for interior section (2 for inside and 1 to cover TV room +Custodian) * 15 (3 X 5) APs for exterior section-5 Sections in Total
	Ubiquiti Unifi AC HD (UAP-AC-HD)- Outdoor High-Density Access Point	1	Wall Mounted	*1 AP for Mess
Mamlaka B	UAP-AC-M-PRO- Outdoor Access Point	18	Pole/Wall Mounted	*3APs for interior section (2 for inside and 1 to cover TV room +Custodian) * 15 (3 X 5) APs for exterior section-5 Sections in Total
	Ubiquiti Unifi AC HD (UAP-AC-HD)- Outdoor High-Density Access Point	1	Wall Mounted	*1 AP for Mess
Houses (House 2-House 10)	UAP-AC-M-PRO- Outdoor Access Point	9	Pole Mounted	*1 AP for each house
TOTAL		**123**		

Table 5: Access Points mounting type-Women Hostels

Location	AP Type	Number	Mounting Type	Proposed Location
Hall 12	UAP-AC-M-PRO- Outdoor Access Point	**12**	Pole/Wall Mounted	*4 APs at interior of the Hall *8 Aps at exterior of the Hall
Hall 13	UAP-AC-M-PRO- Outdoor Access Point	14	Pole/Wall Mounted	*6 APs at interior of the Hall *8 Aps at exterior of the Hall
Hall 20	UAP-AC-M-PRO- Outdoor Access Point	10	Pole Mounted	*4 APs for interior section *6 APs for exterior section
	UAP-AC-PRO-Indoor Access Point	2	Ceiling Mounted	*1 AP for TV room *1 AP for Cafeteria
Stella Awinja	UAP-AC-M-PRO- Outdoor Access Point	11	Pole/Wall Mounted	*Around the hostel
	UAP-AC-PRO-Indoor Access Point	2	Ceiling Mounted	*1 AP for TV room *1 AP for Mess
TOTAL		51		

LOT 4: WIFI INSTALLATION AT KENYATTA UNIVERSITY HOSTELS

4.3. Detailed Scope of Works

1. The Scope of Works is to Install a total of 195 Outdoor Access Points in KU Main campus hostels. A mandatory site survey will be required to establish the location of the Access Points. KENET shall supply all the Access Points and the required accessories for mounting the Access Points.

2. The Access points shall be installed on 8 M ground mounted poles and on wall mounted poles as shown in

3. Table 6 on proposed Access Points locations. KENET shall supply and install the 8M poles prior to Access points installation while the bidder is supposed to supply and install the poles for wall mounting of the Access Points. All bids must comply with all sections of this RFP and the products and services to be considered.

4. The installation must be neatly done.

5. Cabling of the Access Points from the mounted location to the Power Over Ethernet (PoE) injectors and/or PoE switches located in designated rooms within each Hall of Residence. **Bidders are required to provide the RJ45 connectors and crimp the same**

6. Conduits will be provided for entry of the cables to the designated rooms that will host the POE switches and Injectors.

7. The successful contractor will submit   as built drawings for the location of the Access points.

Table 6 : Access Points at Kenyatta University

Location	AP Type	Number	Mounting Type	Proposed Location
Library and Science Complex	UAP-AC-M-PRO- Outdoor Access Point	9	Pole/Wall Mounted	*1 APs at Library Clock *8 Aps at Science Complex
Aberdares Hostels	UAP-AC-M-PRO- Outdoor Access Point	11	Pole/Wall Mounted	*3 APs at Old Aberdares *8 Aps at Aberdares Hostel (1-4)
Menengai Mfumbiro Nyandarua	UAP-AC-M-PRO- Outdoor Access Point	68	Pole/Wall Mounted	*12 APs at New Menengai *8 APs at Old Menengai 5 * 2 Aps Old Menegai 3 *10 Aps at Old Menengai 1&2 *20 Aps at Mfumbiro Hostels (1,2,3) * 16 Aps at Nyandarua Hostels (1,2,3,4)
Fine Arts & Graduation	UAP-AC-M-PRO- Outdoor Access Point	4	Pole/Wall Mounted	*1 AP at Fine Art *3 Aps at Graduation Square
Usambara and Longonot	UAP-AC-M-PRO- Outdoor Access Point	40	Pole/Wall Mounted	*18 Aps at Usambara *8 Aps at Longonot (3,4) *2 Aps at Longonot 2b *2 Aps at CASB Workshop *8 Aps at Longonot (1,2) *2 Aps at Longonot 1b
Lukenya and Ruwenzori	UAP-AC-M-PRO- Outdoor Access Point	47	Pole/Wall Mounted	*8 APs at Lukenya (1,2) *2 APs at Lukenya 2b *8 Aps at Lukenya (3,4) *10 Aps at Ruwenzori (1-5) *7 Aps at Ngong and Old Ruwenzori *12 Aps at Ngong Hills Hostels
Bishop and New School of Education	UAP-AC-M-PRO- Outdoor Access Point	4	Pole/Wall Mounted	*2 APs at Bishop *2 Aps at New School of Education
Kilimambogo Hostel	UAP-AC-M-PRO- Outdoor Access Point	12	Pole/Wall Mounted	*12 APs at Kilimambogo
TOTAL		**195**		

LOT 5: WIFI INSTALLATION AT JKUAT HOSTELS

4.4. Detailed Scope of Works

1. The Scope of Works is to Install a total of 73 Outdoor and Indoor Access Points in JKUAT Main campus hostels. A mandatory site survey will be required to establish the location of the Access Points. KENET shall supply all the Access Points and the required accessories for mounting the Access Points.

2. The Access points shall be installed on 8 M ground mounted poles and on wall mounted poles as shown in Table 7 and Appendix 1 on proposed Access Points locations. KENET shall supply and install the 8M poles prior to Access points installation while the bidder is supposed to supply and install the poles for wall mounting of the Access Points. All bids must comply with all sections of this RFP and the products and services to be considered.

3. The installation must be neatly done.

4. Cabling of the Access Points from the mounted location to the Power Over Ethernet (POE) injectors and/or PoE switches located in designated rooms within each Hall of Residence. Bidders are required to provide the RJ45 connectors and crimp the same

5. Conduits will be provided for entry of the cables to the designated rooms that will host the POE switches and Injectors.

6. The successful contractor will submit   as built drawings for the location of the Access points.

Table 7: Access Points for JKUAT

Location	AP Type	Number	Mounting Type
Student Center	UAP-AC-M-PRO- Outdoor Access Point	2	Pole/Wall Mounted
BEED	UAP-AC-M-PRO- Outdoor Access Point	1	Pole/Wall Mounted
IEET	UAP-AC-M-PRO- Outdoor Access Point	1	Pole/Wall Mounted
	UAP-AC-PRO-Indoor Access Point	1	Wall Mounted
CPC	UAP-AC-M-PRO- Outdoor Access Point	1	Pole/Wall Mounted
RPE	UAP-AC-M-PRO- Outdoor Access Point	1	Pole/Wall Mounted
CLB Open Space	UAP-AC-M-PRO- Outdoor Access Point	1	Pole/Wall Mounted
	UAP-AC-PRO-Indoor Access Point	1	Ceiling Mounted
Pine Park	UAP-AC-M-PRO- Outdoor Access Point	1	Pole/Wall Mounted
INTROMID	UAP-AC-M-PRO- Outdoor Access Point	4	Pole/Wall Mounted
Technology House	UAP-AC-M-PRO- Outdoor Access Point	1	Pole/Wall Mounted
	UAP-AC-PRO-Indoor Access Point	9	Wall Mounted
Hall 1-6	UAP-AC-M-PRO- Outdoor Access Point	20	Pole/Wall Mounted on All sites *9 APs at Hall 6 *3 APs at Hall 5 * 2 APs at Hall 4 * 2 APs at Hall 3 * 2 APs at Hall 2 * 2 APs at Hall 1
Pavilion	UAP-AC-M-PRO- Outdoor Access Point	1	Pole/Wall Mounted
	UAP-AC-PRO-Indoor Access Point	1	Wall Mounted
Library Boardroom	UAP-AC-PRO-Indoor Access Point	1	Wall Mounted
Assembly Hall	UAP-AC-M-PRO- Outdoor Access Point	3	Pole/Wall Mounted
Student Finance	UAP-AC-M-PRO- Outdoor Access Point	3	Pole/Wall Mounted
Civil Engineering	UAP-AC-M-PRO- Outdoor Access Point	2	Pole/Wall Mounted
Cherry Park/NSC	UAP-AC-M-PRO- Outdoor Access Point	2	Pole/Wall Mounted
Cafeteria	UAP-AC-M-PRO- Outdoor Access Point	4	Pole/Wall Mounted

	UAP-AC-PRO-Indoor Access Point	1	Wall Mounted
Boardroom	UAP-AC-PRO-Indoor Access Point	1	Wall Mounted
Sumitomo	UAP-AC-M-PRO- Outdoor Access Point	4	Pole/Wall Mounted
	TOTAL	**73**	

6.1. Institutional Contacts

Table 8 below provides the institutional contact for the purposes of site survey.

Table 8: Institutional Contacts

	Institution	Name of contact	Telephone
1	University of Nairobi	Lazarus Masila	+254 721277999
2	Kenyatta University	Henry Kamau	+254721785706
3	JKUAT	Arthur Kinyanjui	+254720756079
4	KENET	Jeremiah Kioko	+254725554477
5	KENET	Judah Opuck	+254704569074
6	KENET	Cornelius Achiki	+254738289200

7. Internal Wayleave Approvals

KENET will provide access to the successful contractor(s) to the required locations for installation of the Access Points.

8. Site Survey

Site surveys are **Mandatory** for all bidders before submission of proposals. Bidders should attach the signed survey forms to the proposals for LOTs bid for.

Site surveys will be carried out as per the Schedule of Events.

9. Acceptance Procedures for Installation of the Access Points

i. The installer shall perform tests in coordination with the specific university (University of Nairobi, Kenyatta University and JKUAT) Techies and the KENET Engineers to ensure that the APs are operational and properly mounted.

ii. If any of the test results do not meet the Acceptance Standards, KENET shall request the supplier to take corrective actions and retest to meet the Acceptance Standards.

10. Implementation Schedule

Each bidder must provide a clear implementation schedule indicating the implementation period of the project.

11. Evaluation Criteria

The evaluation criteria shall be as follows:

i. Preliminary evaluation based on the mandatory requirements as shown in *Appendix 1*

ii. Technical evaluation as stipulated in the technical requirements in Tables above.

iii. Financial capacity and strength as shall be established from the audited copies of financial statements

Note that once you fail at one stage you will not proceed to the next stage. The flow of evaluation will as be enumerated above. Award shall be to the most responsive bidder and not necessarily the lowest bidder.

11.1. Preliminary Evaluation

All bidders shall comply with the preliminary requirements. Any bidder who will not comply at this stage will not proceed to the technical evaluation. The requirements are as attached in *Appendix 1*

11.2. Technical Evaluation

Bidders will be evaluated on technical performance based on the criteria defined in

Appendix 2. Only bidders with a score of 80% and above at the technical evaluation stage will qualify for financial evaluation.

11.3. Financial Evaluation

The weight of financial evaluation will be based on pricing.

NB: Quote should be in Kenya Shillings

12. Submission date

The final date of submission of the Proposals shall be ***Friday 27th March 2020 at 11.00 p.m local time*** at KENET offices at Jomo Kenyatta Memorial Library, University of Nairobi-Main Campus. Bidders shall submit two hard copies and a soft copy on CD. The proposals shall be opened on ***Friday 27th March 2020 at 11.30 a.m***. Bidders are encouraged to send a representative during the proposal opening.

Appendices

Appendix 1: Preliminary requirements

No	Required Item	Comply/ Not Comply	Comments
1	Certificate of Incorporation		
2	VAT certificate		
3	PIN certificate		
4	TAX compliance certificate		
5	Bidders shall be required to submit latest audited accounts. The accounts shall not be older than two financial years from the current calendar year. The letter of comfort from the bank will be acceptable to support the audited accounts in evaluating the financial strength of the bidder		
6	Financial strength of the bidder- i. Turnover for the financial year shall be ≥3 times the bid price ii. Working capital for the latest financial year should be positive		
7	References of companies where similar projects have been implemented and the cable length.		
8	Signed Site survey form		
9	Completeness of the proposal (all access components MUST be included)		
10	Provided two hard copies, one original and a copy and a soft copy on CD		`
11	Performance bond: 5% valid for 120 days		

Note: The bidder shall have an Installation "ALL RISK", Third-Party Liability and Professional Indemnity Insurance to cover any damage that may occur during the installations

Appendix 2: Technical Requirements

	Technical Parameter	Maximum score (%)	Comment
1	Technical capacity of the project implementation and support teams	25	
2	Firms experience in at least three projects of similar nature in the last three years	25	
3	Detailed Implementation schedule and period (implementation period should be less than 1 month)	25	
4	Project Methodology	25	
Total		**100**	

Note: Only bidders with a score of 80% and above at the technical evaluation stage will qualify for financial evaluation.

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Appendix 3: Bidders site survey form (fill in duplicate)

Tender Name:

KENET Site Name: ………………………………………………………………………..

Date of Survey **……………………………………………………………………………..**

Name of Firm**…………………………………………………………………..**

Names of Bidders survey officers;

1. Name …………………………………….   Tel no …………………………

    Email ……………………………………..   Signature ………………………...

2. Name …………………………………….   Tel no …………………………......

    Email …………………………………….   Signature ………………………...

3. Name …………………………………….   Tel no …………………………

    Email …………………………………….   Signature ………………………..

In the presence of;

Name of KENET /Institution Contact …………………………………………………………..

Tel no **……………………..**

Email ………………………………………………… Signature ……………………………..

Date:…………………………………