Adigrat University Wireless Installation National Bid for 2010 E.C Lot: 1

Rno	Item	Minimum Requirement		Unit	Qty	Unit price	Total Price	Remark
1	**Indoor Wireless Access point**	Basic features	Support 802.11ac wave 2 standards, 4 x 4 MIMO and four spatial streams 800 Mbit/s at 2.4 GHz; 1.7 Gbit/s at 5 GHz; and 2.5 Gbit/s for the device	set	35			
		Antenna type	Built-in					
		Environmental specifications	Operating temperature：–10℃ to +50℃ Storage temperature：–10℃ to +70℃ Operating humidity：5% to 95% (non-condensing) Waterproof and dustproof grade：IP41					
2	**Outdoor Wireless access point**	Basic features	Support 802.11ac 3 x 3 Multiple-Input Multiple-Output (MIMO) chips, energy-efficient design, and a rate of up to 1.7 Gbit/s	set	120			
		Antenna type	Built-in					
		Environmental specifications	Operating temperature：–10℃ to +60℃ Storage temperature：–40℃ to +70℃ Operating humidity：0% to 100% (non-condensing) Waterproof and dustproof grade：IP67					

3	**High density indoor wireless access point**	Basic features	Support 802.11ac 2x2 Multiple-Input Multiple-Output (MIMO) chips, energy-efficient design, and a rate of up to 2.5 Gbit/s It shall be used in the high density scenario	set	42			
		Antenna type	Built-in					
		Environmental specifications	Operating temperature：–10℃ to +50℃ Storage temperature：–40℃ to +70℃ Operating humidity：5% to 95% (non-condensing) Waterproof and dustproof grade：IP41					
4	**Access controller**	general	should consider all the management of the Aps. They should work as redundant system.	set	2			
5	**8/16/24 Port Full POE/half Poe or normal Switch**	Switching capacity	320Gbit/s	set	50			Based on site survey, bidders should consider all inputs to propose the type of switch as it fits
		Forwarding performance	90Mpps					
		Fixed ports	24x10/100/1000Base-T PoE Ethernet ports, 4x10GE SFP+ ports					
6	**48 port Full POE/ half poe/ normal Switch**	Switching capacity	320Gbit/s	set	36			
		Forwarding performance	130Mpps					
		Fixed ports	48x10/100/1000Base-T PoE Ethernet ports, 4x10GE SFP+ ports					
7	**Single Mode Fiber**	Fiber cable - Single-Mode 12-core loose tube armoured outdoor cable - 9/125 cable. Suitable for direct burial, rodent resistant and waterproof. Must be provided on reel (will not be accepted without storage reel). New and complete reel of fiber optic single-mode 9/125 cable. Evidence of Single-mode cable must be provided on cable.		Meters	7000			Based on site survey, bidders should consider the geographical location of all points to select and propose the

8	**MultiMode Fiber**	Fiber cable - Multi-Mode 12-core loose tube armoured outdoor cable - 50/125 cable. Suitable for direct burial, rodent resistant and waterproof. Must be provided on reel (will not be accepted without storage reel). New and complete reel of fiber optic Multi-mode 50/125 cable. Evidence of Multi-mode cable must be provided on cable.	Meters	1500			and propose the type and quantity of fiber
9	**Fiber optic cable - multi-mode cable 50/125mm - Duplex - LC-LC connector - 5m length**	Fiber optic duplex cable - multi mode - LC-LC connectors - 5m length	pcs	200			
10	**Fiber optic cable - single-mode cable 9/125mm - Duplex - LC-LC connector - 5m length**	Fiber optic duplex cable - single mode - LC-LC connectors - 5m length. Both cables should be attached together	pcs	200			
11	**Fiber Optic Patch panel 12 port with cable management - LC connectors - 1U - rack mounted**	19" (inch) rack mounted 12 port fiber patch panel - LC connectors - Infalink make is preferable	pcs	150			

12	**Fiber optic pigtail cable - 9/125mm - single mode - LC connector**	Single mode fiber pigtail - 9/125mm - LC connector	pcs	80			
13	**Fiber optic pigtail cable - 50/125mm - multi mode - LC connector**	Multi mode fiber pigtail - 50/125mm - LC connector	pcs	80			
14	**UTP Patch panel - 48 port UTP CAT6 - Infalink or mini-pro make or other equivalent**	Rack mounted patch panel - Infalink or mini-pro make or other equivalent	Pcs	200			
15	**UTP Patch panel - 24 port UTP CAT6 - Infalink or mini-pro make or other equivalent**	Rack mounted patch panel - Infalink or mini-pro make or other equivalent	Pcs	200			
16	**Switch cabinet - 9u - wall mounted -**	Prebuilt/constructed 9u switch cabinet and it should have its own builtin PDU and UPS(as it applies). The cabinet should include all accessories for installation.	Pcs	100			Based on site survey and switches they propose, bidders should make sure all proposed cabinets should incorporate the switches and ups

17	**Video Survillance System**	Maximum access channels	16 channels,256 Mbit/s BW,	pcs	1			
		Disks	Two Disks, supporting Raid 0 and Raid 1					
		Network ports	1 x 10/100/1,000 Mbit/s Ethernet port, 8 x 10/100 Mbit/s Ethernet ports, PoE supported					
		Cabinet	19-inch 1U cabinet					
18	**Network Bullet Camera**	image sensor and pixel	2 .0 megapixel progressive scan CMOS, 1920(H)×1080(V) pixels,	pcs	16			
		Day/Night mode	Auto/Color/Monochrome (removable infrared-cut filter),					
		Angular Field of View	Horizontal: 96°(Wide) ~ 36°(Tele) Vertical: 51°(Wide) ~ 20°(Tele)					
		Network protocol	TCP, UDP, IPv4, DHCP, DNS, ICMP, IGMP, HTTP, HTTPS, SFTP, RTP,RTSP, RTCP, SIP, ARP, TLS, NTP, SNMP(V1/V2/V3), 802.1x, QoS, DDNS, FTP, SSL, and SSH					
		Security mode	User name and password authentication, 802.1x , and HTTPS digital certificate					
		Anti-corrosion	Satisfies the ISO9223 Class C4 environment, complies with IEC60068-2-11					
19	**UPS Battery**	Value regulated lead-acid battery 6-gfm-100, 12v 100Ah(c10) for UPS System		pcs	128			

20	**Network access management system**	Access Control Manager	Provides unified network access policies and supports multiple authentication methods such as 802.1X, Portal, MAC address, and SACG authentication. This implements unified access management on users from wired, wireless or VPN networks.	set	1			
		Free Mobility Manager	Support users receive the same service experience when they move on the network. Provides user group–based QoS policy configuration to preferentially forwards VIP users' data traffic when there are few network resources, delivering high QoE for VIP users.					
		Guest Manager	Provides full lifecycle guest management, including account application, approval, distribution, authentication, auditing, and deregistration.					
21	**Network management system**	general	should consider all the devices management license such as platform, server manager, storage manager, WLAN Manager, network traffic analyzer manager, facilities infrastructure manager, uc/cc device manager, telepresence device manager, ipsec vpn manager.The management scale should be upto 5000	set	1			shouldbe compatible with the existing (eSight) management system

22	**Module transceiver**	1GE transceiver	10GE Single model transceiver	pcs	80			Access connection of our campus considers a 10G connection, and bidders should propose the modules as it fits based on site survey
		1GE transceiver	1GE multiple model transceiver	pcs	10			
23	**NOC (Network Operation Center)**	75" LED Screen including all of the cabling system, installation and integration with university existing NMS.		set	3			shouldbe compatible with the existing NOC and NMS
24	**Accessories**	All accessories such as docoration, poles, electrical equipments, fiber related componenets, UTP cable and related units, Network equipment, installations and other relevant materials for successsful deployment of the solution should be considered.						

25	**Installation, Commissioning, and testing**	Successful Bidders are required to install, commission, and test all wireless network facilities after delivery. Successful Bidders are required to extend the optic fiber lines to the selected locations asper the university guidance from the near by building or the university data center. They are also required to make necessary splicing and expansion of fiber lines. Any form of deformations or changes to the building or other facilities during installation, commissioning, and testing must be patched or repaired or restored by the supplier/winner.						
26	**Relevant Trainings & Visits**	On-Site Trainings	Successful Bidders are required to arrange germane onsite trainings for the AdU-ICT staffs covering all concomitant expenses during & after installation & commissioning.	number	5			
		On-factory Trainings & Visits	Successful Bidders are required to arrange visits to factories and on-factory trainings (on Facilities installation, configuration, & management) & certifications prior to the start of installation works covering all concomitant expenses (per-dime + certification fees + Air transport fares).	number	5			

27	**Handheld two-way radio**	The handheld two-way radio should be more portable and durable. It should have a rubberized shell. Besides, the two-way handheld radio should have the following features • Almost indestructible. The rubberized shell is very hard to crack. • Feels good in your hand. The ergonomic shape helps you hang on. • Boost the signal with a repeater. If you have a GMRS license, you can use a repeater to boost this radio's signal. • Waterproof. This IP67 certified hand radio floats and can withstand submersion for 30 minutes. • Good battery life. You can use the handheld two-way radio all day long and it won't run out of battery. • Scans for NOAA weather alerts. This standard feature lets you know when a storm is blowing your way. • 35 mile maximum range. The signal stays strong across long distances.	set	20			**includes all the accessories such as charger, battery, antenna, belt clip, headphone, earphone, case**
					Total Price		
	NB:- 1) The winner will be determined according the grand total of price but only if the provider meets the minimum technical requirments (see a separate evaluation criterea document). 2) Bidders shall present two copies of technical and finacial douments. 3) consider as a set (including all minimum requirements for the solution). Any missed item for the solution is the responsiblity of the winner. 4) Put total cost for installation, training for atleast five university ICT staffs for this purpose. 5) The winner is expected to conduct the installation as per the request of the university. (The winner is responsible to install all the listed items as per the requast of the University) 6) Bidders should conduct site survey to provide appropriate solution and should get final approval from AdU ICT. The site survey(mandatory) will be conducted on May 21, 2018 and May 23, 2018 10:00 AM at the university 7) The on-factory training should be conducted ahead of material delivery to the university. 8)The management of the system should be interoperable with university data center management system.9.						