Republic of the Philippines
VISAYAS STATE UNIVERSITY
Visca, Baybay City, Leyte

PURCHASE REQUEST

PR No.: **STF-2022-05-00550**   Date: **05-13-2022**

Dept./Office: **ICTMC**

Section/End-User: **Norman O. Villas**

Funding Source: **Special Trust Fund**

Category: **IT Supplies and Equipment**

Project Title/Code: **Dorm Connectivity**

Item #	Item Description	Unit	Qty	Unit Cost	PAR/ICS	Total Cost
1	**1KM Single Core FTTH Drop Cable**	spool	20	3,700.00		74,000.00
	Specification: ?1 Kilometer FTTH Drop Cable ?Single-Core outdoor ?GS657 ?3 steel wire messenger					
2	**24 Ports PoE+ Managemed Gigabit Switch with SFP**	unit	10	28,000.00		280,000.00
	Specification: • Interfaces Networking Management (24) 10/100/1000 RJ45 Ports (2) 1G SFP Ethernet Ports Ethernet In-Band • Total Non-Blocking Throughput 26 Gbps • Switching Capacity 52 Gbps • Forwarding Rate 38.69 Mpps • Power Method 100-240VAC, 50/60 Hz, Universal Input Power Supply AC/DC, • Internal, 120W Voltage Range 100 to 240VAC Max • Power Consumption (Excluding PoE Output) 25W • LEDs RJ45 Data Ports SFP Data Ports PoE; • Speed/Link/Activity Link/Activity ESD/EMP Protection Air: ± 16 kV, Contact: ± 12 kV Shock and Vibration ETSI300-019-1.4 • Standard Operating Temperature -5 to 40° C (23 to 104° F) • Operating Humidity 10 - 90% Noncondensing • Certifications CE, FCC, ICPoE Total Available PoE 95W PoE • Interfaces Ports 1-16 PoE+ IEEE 802.3af/at (Pins 1, 2+; 3, 6-)Max. PoE Wattage per Port by PSE 802.3at 32W Voltage Range 802.3af Mode 802.3at Mode 44-57V 50-57V • **Should be compatible with existing fleet of unifi and existing unifi controller**					
3	**3/4 buckle stainless for stainless strap 100pcs per bag**	bag	4	800.00		3,200.00

Specification:

3/4 buckle stainless for stainless strap 100pcs per

4	EPON OLT 4 PON PORT 10GEPON OLT	unit	4	30,000.00		120,000.00

Specification:

- DDR: 512M
- FLASH: 16M
- 4*10/100/1000Mauto-negotiable,RJ45
- PhysicalInterface: 4 SFP slots
- Connector Type: 1000BASE-PX20+/PX20++/PX20+++
- Max splitting ratio: 1:64
- Management Ports: CONSOLE port/NMS PORT
- Power Input: AC: 100V?240V AC 47/63Hz
- Support standard: IEEE 802.3ah EPONIEEE802.3(10Base-T)IEEE802.3u(100Base-TX)IEEE802.3z?1000BASE-X?IEEE802.3ab?1000Base-T?IEEE802.1Q(VLAN)IEEEE802.1d(STP)IEEEE802.1W(RSTP)IEEE802.1p(COS)IEEE802.1x(Port Control)IEEE802.3x?flow-control?Each OLT interface supports at most 64 ONU?Transmission distance of each OLT is at most 20Km
- PON function: Support auto register and confirmBlacklist and whitelist onuDBA configureP2PONU authorization
- Layer 2/3 function: VLAN,QinQ,link convergency, broadcast strom controlSupport at most 4094 VLAN;performance statistic16K MAC address;mac address managementPort mirror / Static TrunkSupport RSTPStorm controlSupport IGMP Snooping/proxySupport 512 router hostsSupport 64 router subnetsLimit quantity of maximum user at each portPort isolationPacke storm controlACL access control based on data streamQoS based on port, VID, TOS and MAC address;Encrytion of PON port transmitting data
- Configuration and Management: SNMP/NMSWebGUI managementCLI, SNMP, TELNET,cluster etc.SSHv1/v2Software and bootrom upgrade by TFTP and FTPLocal server syslog to record system logChinese/English command promptPing and tracerouteDebug/Log managementUser management;Alarm management.
- Lightning protection: Service port has lightning protection
- Maintenance: Telnet remote maintenance

5	EPON OLT PX20+++ PON MODULE	unit	16	2,000.00		32,000.00

Specification:

EPON OLT PX20+++

- EPON OLT PX20+++
- Single-fiber bidirectional hot-swappable SFP with SC/UPC interface
- Up to 1.25Gbps operating rate
- 1490nm DFB-LD transmitter and 1310nm burst mode APD-TIA receiver
- Support DDM, which can provide diagnostic and testing functions for power supply, temperature, transmitting and receiving status, and service life.
- Transmission distance up to 20KM
- Comply with MSA SFP specification SFF-8472
- Conforms to IEEE 802.3ah

6	FTTH S Type Fiber Fixing Clamp for FTTH Drop cable	pcs	200	20.00		4,000.00

Specification:

- Material : Plastic and Metal
- S-type
- Fiber Fixing

7	FTTH SC connector butterfly type bundle 10 pcs per pack	pack	100	600.00		60,000.00

Specification:

?Field installable connector (SC) consist of the following components

?Locking Tool

?Flop Cover

?Cable Buckle

?Slider

?Length Control Jig

8	Heavy Duty Bander Tensioner	unit	4	3,500.00		14,000.00

Specification:

- Durable Pliers:This Strapping Tensioner is made from high-quality stainless steel with an epoxy powder-coated finish,
- Heavy duty steel band strapping tool features a premium tension handle, spring-loaded gripper, built-in cutter and screw rod for added torque and durability.
- Spring loaded gripper lever ruggedness and its high reliability
- Can tension above 2,400 lbs of force
- Sharply Strapping Packer Machine
- Adopts a tensioning belt and a cut-off cable tie function
- Suitable steel band width: 4-20mm
- Suitable steel band thickness: 0.4-0.8mm
- Suitable steel band hardness: <250 HB

9	NAP Box with PLC 1:8 spliiter	unit	20	2,000.00		40,000.00

Specification:

Supply 8 Core Outdoor Plastic Fiber Optic Cable Distribution/Termination Box

- User familiar industry interface, using high impact plastic PC/ABS.
- Can accommodate 1x8 PLC splitter
- The high strength plastic, anti-ultraviolet radiation and ultraviolet radiation resistant, resistant to rain
- Up to 8 FTTH drops ,1 inlet ports, 8 outlet ports
- Wall and pole mountable
- With installed 1:8 SC-UPC PLC Splitter

10	**Steel Banding for NAP Fiber stainless strap 50m 1/2inch 3/4inch .5mm**	unit	20	1,000.00		20,000.00

Specification:

- Stainless Strap 3/4 50M/roll
- High tensile strength
- Rustproof
- Non-flammability
- Anti-corrosion
- Stainless steel material in a shiny finish offers good resistance to oxidation and many moderate corrosive agents

11	**Ubiquiti Unifi 8 Port PoE+150W SFP Switch**	pc	10	12,000.00		120,000.00

Specification:

- Switching Capacity: 20Gbps
- Forwarding Rate: 14.48Mbps
- Power Method: 100-240VAC/50-60Hz, Universal Input
- Power Supply: AC/DC, Internal, 150 W DC
- LED Per Port: RJ45 Data Ports: PoE
- Compatible with existing fleet

12	**Ubiquiti Unifi HD Access Point 802.11 AC Wave 2 MU-MIMO Indoor / Outdoor High Density Access Point**	unit	111	18,000.00		1,998,000.00

Specification:

- Networking Interface (2) 10/100/1000 Ethernet Ports Buttons Reset Power Method 802.3at PoE+ Supported Voltage Range 44 to 57VDC
- Power Supply UniFi Switch (PoE) Power Save Supported Beamforming Supported Maximum Power Consumption 17W TX Power 2.4 GHz 5 GHz 6-25 dBm 6-25 dBm Antennas 2.4 GHz 5 GHz (2) Dual-Port, Dual-Polarity Antennas, 3 dBi each (2) Dual-Port, Dual-Polarity Antennas, 4 dBi each Wi-Fi Standards 802.11 a/b/g/n/r/k/v/ac/ac-wave2 Wireless Security WEP, WPA-PSK, WPA-Enterprise (WPA/WPA2, TKIP/AES) 802.11w/PMF BSSID Up to 8
- Radio Mounting Wall/Ceiling (Kits Included)
- Operating Temperature -10 to 70° C (14 to 158° F)
- Operating Humidity 5 to 95% Noncondensing
- Certifications CE, FCC, IC Advanced Traffic Management VLAN 802.1Q Advanced QoS Per-User Rate Limiting Guest Traffic Isolation Supported WMM Voice, Video, Best Effort, and Background Concurrent Clients 1000+ Supported Data Rates (Mbps)Standard Data Rates 802.11a 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n 6.5 Mbps to 450 Mbps (MCS0 - MCS23, HT 20/40) 802.11ac 6.5 Mbps to 1.7 Gbps (MCS0 - MCS9 NSS1/2/3/4, VHT 20/40/80) 58 Mbps to 1.7 Gbps

(MCS0 - MCS9 NSS1/2, VHT 160) 802.11b 1, 2, 5.5, 11 Mbps 802.11g 6, 9, 12, 18, 24, 36, 48, 54Mbps

- Should be compatible with the existing fleet of Unifi Access Points and Controller

13	UTP Cable (300 meters), CAT 6 23 AWG	box of 50's	50	8,500.00		425,000.00

Specification:

?UTP Cable cat6

?Cat 6 Cable UTP Unshielded AWG23

?Gray Data LAN Cable

?1000 feet 305m 1000ft.

?must be UL listed & ISO certified cable

14	XPON (Passive Optical Network) STICK ONU	unit	50	2,000.00		100,000.00

Specification:

- Single fiber bi-directional data links asymmetric TX 1244Mbps / RX 2488Mbps EPON ONU application with EPON MAC function.
- SC/UPC receptacle SFP with EPON ONU MAC inside, "Plug-and-play" via auto-discovery and configuration
- 1310nm DFB burst mode transmitter, 1490nm TIA continuous mode receiver
- Single 3.3V power supply
- Digital diagnostic monitor interface compatible with SFF-8472
- SFP MSA compliance
- Low EMI and excellent ESD protection
- Class I laser safety standard IEC-60825 compliant
- RoHS compliance
- EPON ONU compatible
- Complies with SFP Multi-Source Agreement (MSA) SFF-8074i
- Complies with ITUT-T G.984.2, G.984.2 Amendment 1
- Complies with ITUT G.988 ONU management and control interface (OMCI) specification

	TOTAL						**3,290,200.00**

Purpose: for dormitries connectivity

Checked by:	Funds Available:
MICHAEL ANTHONY JAY B. REGIS	**ALICIA M. FLORES**
TWG - IT Supplies and Equipment	HEAD, BUDGET OFFICE

	Requested by:	Noted by:	Approved by:
Signature:			
Printed Name:	**NORMAN O. VILLAS**	**SEAN O. VILLAGONZALO**	**EDGARDO E. TULIN**
Designation:	END USER	UNIT HEAD, PROJECT LEADER	PRESIDENT, VSU