

SCAN HERE



PR-2024-0206-176452

07/08/24



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

PURCHASE REQUEST

PPMP No. : 147-1-1248-2024-0-0-0

PR No.: STF-2024-02-00409

Date: 07-08-2024

Dept./Office: ICTMC

Category: IT Supplies and
Equipment

Section/End-User: Marco L. Cabras

Funding Source: Special Trust Fund

Project Title/Code: Network Augmentation 2024

Item #	Item Description	Unit	Qty	Unit Cost	PAR/ICS	Total Cost
1	10Gbps SFP+ module single mode 10KM duplex LC-LC	unit	20	10,000.00		200,000.00
2	2 Core 5 Ports Router with RouterOS	unit	5	4,000.00		20,000.00

Specification:

Architecture	MMIPS
CPU	MT7621A
CPU core count	2
CPU nominal frequency	880 MHz
CPU Threads count	4
Switch chip model	MT7621A
Dimensions	113x89x28mm
RouterOS license	4
Operating System	RouterOS
Size of RAM	256 MB
Storage size	16 MB
Storage type	FLASH
MTBF	Approximately 100'000 hours at 25C
Tested ambient temperature	-40°C to 60°C
IPsec hardware acceleration	Yes

Powering

Details

Number of DC inputs	2 (DC jack, PoE-IN)
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Details

DC jack input Voltage	8-30 V
Max power consumption	10 W
Max power consumption without attachments	5 W
Cooling type	Passive
PoE in	Passive PoE
PoE in input Voltage	8-30 V

Ethernet

Details

10/100/1000 Ethernet ports 5

Peripherals

Details

Memory card type	microSD
Memory Cards	1
Number of USB ports	1
USB Power Reset	Yes
USB slot type	USB type A
Max USB current (A)	1

3	AOC SFP+ 10G (LC DUPLEX) SFP MODULE - 10 Meters	unit	20	1,800.00		36,000.00
4	button battery 3V CR1220	pc	100	50.00		5,000.00
5	CMOS battery CR2032	pcs	100	50.00		5,000.00
6	Duplex LC-LC Patch cord Single Mode 3 meters	unit	100	500.00		50,000.00
7	Enterprise 40Gbps Network Switch with 24 SFP+ Ports	unit	2	50,000.00		100,000.00

Specification:

Architecture	MIPSBE
CPU	QCA9531
CPU core count	1
CPU nominal frequency	650 MHz
Switch chip model	98DX8332
Dimensions	443 x 200 x 44 mm
RouterOS license	5
Operating System	RouterOS v7 / SwitchOS
Size of RAM	64 MB
Storage size	16 MB

Storage type	FLASH
MTBF	Approximately 200'000 hours at 25C
Tested ambient temperature	-20°C to 60°C
Powering	
Details	
Number of AC inputs	2
AC input range	100-240
Max power consumption	69 W
Max power consumption without attachments	42 W
Cooling type	3 fans
Ethernet	
Details	
10/100 Ethernet ports	1
Fiber	
Details	
SFP+ ports	24
Number of 40G QSFP+ ports	2
Peripherals	
Details	
Serial console port	RJ45
Number of USB ports	1
USB Power Reset	Yes
USB slot type	USB type A
Max USB current (A)	1
Certification & Approvals	
Details	
Certification	CE, EAC, ROHS
IP	IP20

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**Enterprise Router 10Gbps 4SFP+
with 12G Ethernet Ports**

unit

2

80,000.00

160,000.00

Specification:

Architecture	ARM 64bit
CPU	AL73400
CPU core count	16
CPU nominal frequency	2000 MHz
Switch chip model	98DX3255
Dimensions	443 x 199 x 44 mm
RouterOS license	6
Operating System	RouterOS v7
Size of RAM	16 GB

Storage size	128 MB
Storage type	NAND
MTBF	Approximately 200'000 hours at 25C
Tested ambient temperature	-20°C to 60°C
IPsec hardware acceleration	Yes
Powering	
Details	
Number of AC inputs	2
AC input range	100-240
Max power consumption	83 W
Max power consumption without attachments	60 W
Cooling type	4 fans
Ethernet	
Details	
10/100/1000 Ethernet ports	13
Fiber	
Details	
SFP+ ports	4
Peripherals	
Details	
Serial console port	RJ45
Number of M.2 slots	1
Other	
Details	
CPU temperature monitor	Yes
PCB temperature monitor	Yes
Mode button	Yes
Certification & Approvals	
Details	
Certification	CE, EAC, ROHS

9	F CLAMP for fiber high quality	pc	500	8.00		4,000.00
10	GYTC8S 24 CORES FIGURE 8 3KM/ ROLL, 8 FIBERS PER TUBE, ARMORED, W/ MESSENGER 2.4mm with Color strip(	rolls	4	50,000.00		200,000.00
11	Laptop 16" for Network Technicians	unit	4	70,000.00		280,000.00

Specification:

Processor	Up to 13th Gen Intel® Core™ i7
Operating System	Up to Windows 11 Pro

Graphics	Integrated UMA graphics Optional: NVIDIA® GeForce® MX550 graphics
Memory	16GB installed Memory (Up to 40GB DDR4, 3200MHz (onboard + DIMM))
Storage	512 M.2 PCIe Gen4SSD Installed Storage (Up to 1TB M.2 PCIe Gen4 SSD) Supports Dual SSDs
Battery	Up to 57Whr
Audio	2 x 2W stereo speakers Dual mics Dolby Atmos®

CONNECT IVITY

Ports/Slots	Thunderbolt™ 4 USB-C 3.2 Gen 2 USB-A 3.2 Gen 1 USB-A 2.0 HDMI 2.1 TMDS Ethernet (RJ45) (This is important) Headphone / mic combo
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*USB port transfer speeds are approximate and depend on many factors, such as processing capability of host/peripheral devices, file attributes, system configuration and operating environments; actual speeds will vary and may be less than expected.

Wireless	Up to WiFi 6E* Bluetooth® 5.0
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*6GHz WiFi 6E operation depends on the support of the operating system, routers/APs/gateways that support WiFi 6E, along with the regional regulatory certifications and spectrum allocation.

Docking	ThinkPad Universal USB-C Dock ThinkPad Hybrid USB-C with USB-A Dock Thunderbolt™ 4 Essential Dock
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DESIGN

Display	16" WQXGA (2560 x 1600), IPS, 400 nits, 100% sRGB, optional touchscreen, 91.2% screen-to-body ratio, TÜV Rheinland Low Blue Light-certified 16" WUXGA (1920 x 1200), IPS, 300 nits, 100% sRGB, 45% NTSC, optional touchscreen, 91.2% screen-to-body ratio, TÜV Rheinland Low Blue Light-certified
Dimensions (H x W x D)	19.85mm x 356.1mm x 247.5mm / 0.77" x 14.01" x 9.75"
Weight	Starting at 1.76kg / 3.88lbs (plastic) Starting at 1.97kg / 4.34lbs (metal)
Color	Graphite Black

Materials and Finish Anodized aluminum on top cover
Optional: Polycarbonate plastic on bottom cover

SUSTAINABILITY

Certifications / Registries ENERGY STAR® 8.0
EPEAT® Gold, where applicable*
TCO 9.0
RoHS Low Halogen
TÜV Rheinland Low Blue Light
FSC packaging

OTHER INFORMATION

Security Kensington Security Slot™
Camera privacy shutter
Optional: Smart Power On (integrated fingerprint reader on power button)
Optional: Discrete Trusted Platform Module (dTPM) 2.0
With 65W charger included

12	NAP Box 16 Port with APC 1:16 Cassette with pigtail	set	100	2,500.00		250,000.00
13	SC UPC Fastconnect with Metal V-groove reusable up to 10x SC CONNECTOR	pcs	300	40.00		12,000.00
14	SFP 1Gbps Single Mode 10KM LC-LC Must be compatible with Aruba(Existing fleet)	unit	35	5,000.00		175,000.00
15	uPVC Plastic moulding 1" thick white	length	100	150.00		15,000.00
16	uPVC Plastic moulding 5/8" thick white	length	100	120.00		12,000.00
17	uPVC Plastic moulding 1/2" thick white	length	100	80.00		8,000.00
18	uPVC Plastic moulding 3/4" thick white	length	100	100.00		10,000.00
19	Wifi Access Point (Existing fleet of VSU Access Points)	unit	110	12,000.00		1,320,000.00

Specification:

- UAP-nanoHD
- Dimensions: 160 x 160 x 32.65 mm (6.30 x 6.30 x 1.29")
- Weight: 300 g (10.6 oz)

- With Mounting Kits: 315 g (11.1 oz)
- Networking Interface: (1) 10/100/1000 Ethernet Port
- Buttons: Reset
- Power Method: 802.3af PoE
- Power Supply: UniFi Switch (PoE)
- Power Save: Supported
- Beamforming: Supported
- Maximum Power Consumption: 10.5W
- Supported Voltage Range: 44 to 57VDC
- TX Power
 - 2.4 GHz: 23 dBm
 - 5 GHz: 26 dBm
- MIMO
 - 2.4 GHz: 2x2
 - 5 GHz: 4x4
- Radio Rates
 - 2.4 GHz: 300 Mbps
 - 5 GHz: 1733 Mbps
- Antennas
 - 2.4 GHz: (2) Single-Port, Single-Polarity Antennas, 2.8 dBi each
 - 5 GHz: (2) Single-Port, Dual-Polarity Antennas, 3 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: 8 per 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: 200+
- Supported Data Rates (Mbps)

Standard	Data Rates
802.11a	6,9,12,18,24,36,48,54 Mbps
802.11n	6.5 Mbps to 300 Mbps (MCS0-MCS15, 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, 54 Mbps

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**XPON (Passive Optical Network)
STICK ONU**

unit

50

3,500.00

175,000.00

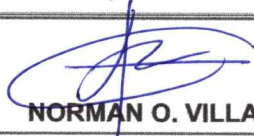
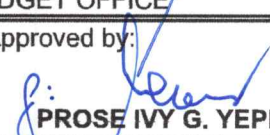
Specification:

?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					3,037,000.00
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Purpose: For VSU Connectivity

Checked by:  NORMAN O. VILLAS		Funds Available:  ALICIA M. FLORES	
TWG - IT Supplies and Equipment		HEAD, BUDGET OFFICE	
Signature:	Prepared by:  MARCO L. CABRAS	Noted by:  SEAN O. VILLAGONZALO	Approved by:  PROSE IVY G. YEPES
Printed Name:			
Designation:		UNIT HEAD, PROJECT LEADER	PRESIDENT, VSU 

JUL 10 2024