The National Productivity Organization



# **BID BULLETIN No.1**

31 October 2024 (Thursday)

BIDDING NO.:	Title/Description:
IB24-414429-03	"ONE (1) LOT SUPPLY, INSTALLATION,
APPROVED BUDGET CEILING (ABC):	CONFIGURATION, AND TESTING, INCLUDING ALL
₱10,000,000. <u><sup>00</sup></u>	NECESSARY ACCESSORIES TO COMPLETE THE
Date of Pre-Bid Conference	REPLACEMENT OF UNMANAGED NETWORK SWITCHES
	TO BRAND NEW MANAGED NETWORK CORE,
22 October 2024 (Tuesday); 10:00 AM	DISTRIBUTION, AND ACCESS SWITCHES FOR DAP
TO.OO AIVI	FACILITIES IN PASIG CITY"

Relative to the conducted Pre-Bid Conference via Hybrid for the above-stated Project last 22 October 2024 (Tuesday), the following clarifications from prospective bidders are being posted for the information of all concerned, as approved by the BAC & TWG:

References based on the OBD / Pre- Bid Conference	New description / Clarification
Title of the Project:	
"ONE (1) LOT SUPPLY, INSTALLATION, CONFIGURATION, AND TESTING, INCLUDING ALL NECESSARY ACCESSORIES TO COMPLETE THE REPLACEMENT OF UNMANAGED NETWORK SWITCHES TO BRAND NEW MANAGED NETWORK CORE, DISTRIBUTION, AND CORE SWITCHES FOR DAP FACILITIES IN PASIG CITY"	"ONE (1) LOT SUPPLY, INSTALLATION, CONFIGURATION, AND TESTING, INCLUDING ALL NECESSARY ACCESSORIES TO COMPLETE THE REPLACEMENT OF UNMANAGED NETWORK SWITCHES TO BRAND NEW MANAGED NETWORK CORE, DISTRIBUTION, AND ACCESS SWITCHES FOR DAP FACILITIES IN PASIG CITY"
Section VII – Technical Specifications	40GbE QSFP+ or 100GbE QSFP28 uplink ports
items no. "2.1 Core Switch-Copper" and 2.2 "One (1) Unit Distribution Switch – Fiber"	<b>Note:</b> Bidder can offer a higher or equivalent to compatible QSFP modules
Section VII – Technical Specifications item no. "2.1 Core Switch-Copper"	Core Switch – Fiber
Section VII – Technical Specifications item no. 2.2 "One (1) Unit Distribution Switch – Fiber"	
Four 400W Exhaust Flow: 4 Units PSU	2 Units PSU
Power Cord: Three (3)	Power Cord: Two (2)
Two 4-port	Retained
Section VII – Technical Specifications, item no. "2.1 Core Switch-Copper"	
"Twelve switches into a single logical switch, up to 2.4 Tbps	Retained
Stacking Cables	Required
Copy of Network Diagram	Will be given to Winning Bidder

References based on the OBD / Pre- Bid Conference	New description / Clarification
Section VII – Technical Specifications item no. 2.2 "One (1) Unit Distribution Switch – Fiber"	
Premium Software License	Software License for Premium features or equivalent.
Section VII – Technical Specifications items no. "2.1 Core Switch-Copper" and 2.2 "One (1) Unit Distribution Switch – Fiber"	
Layer 3	Retained
Section VII – Technical Specifications items no. 2.3. POE for IDFs – ACCESS SWITCH	License is required
Section VII – Technical Specifications item no. 2.4. POE FOR IDFs - ACCESS SWITCH	The winning bidder will propose the PoE power budget in their proposed network design based on the result of the Network Audit requirement of the project.
Section VII – Technical Specifications item no. 3	Bidder may propose a hardware-based or cloud-based solution for centralized monitoring.
Form 2 – Price Schedule	See Annex A – "Revised Form 2 - Price Schedule"
Form 9 –Technical Specifications Compliance	See Annex B – "Revised Form 9 - Technical Specifications Compliance"
	CWDP and CWNA Certification - Network engineering configurations, activations and connectivity. Finalization of Network Structures, submission of as-built design in 20x30 digiblue print 4-sets signed and sealed documentation, test results, technical specifications and manuals must be signed by a Professional Electronics and Communications Engineer (PECE).

Note: The Specifications are the minimum standards. The Bidders may submit higher or better specifications.

## **Reminder to Bidders:**

- 1. The Prospective Bidders may obtain further information from DAP and inspect the Bidding Documents at the DAP Pasig address or through email or contact details provided below during 9:00AM to 4:30PM (except holidays and weekends).
- 2. A complete printed set or electronic copy of Bidding Documents may be acquired by interested Bidders until **15 November 2024** from 9:00AM to 4:30PM, (except holidays

and weekends), from the given address and website below, upon payment of the applicable fee for the Bidding Documents, pursuant to the latest guidelines issued by the GPPB, in the amount of **TEN THOUSAND PESOS (P10,000.00)**. The DAP shall allow the bidder to present its proof of payment for the fees in person, or through electronic means.

It may also be downloaded free of charge from the website of the Philippine Government Electronic Procurement System (<a href="www.philgeps.gov.ph">www.philgeps.gov.ph</a>) and the website of the DAP (<a href="www.dap.edu.ph">www.dap.edu.ph</a>). However, only bidders who have paid the non-refundable applicable fee not later than the deadline for submission of bids, shall qualify to participate and submit the bids.

3. Interested bidders must make payment to:

Account Name:	Development Academy of the Philippines
Account Number:	0671-0105-40
Bank:	Landbank of the Philippines
Branch of Account:	Pasig Capitol Branch

A copy of proof of payment must be emailed to DAP's Finance Department at: <a href="mailto:cashtreasury@dap.edu.ph">cashtreasury@dap.edu.ph</a> and copy furnish <a href="mailto:dapbacsec@dap.edu.ph">dapbacsec@dap.edu.ph</a> for the issuance of Service Invoice (SI) and the BAC Secretariat will provide assistance to the On-line Bidder for the creation of "bidms account" and dedicated site in the <a href="mailto:bidms.dap.edu.ph">bidms.dap.edu.ph</a>.

- 4. In compliance with GPPB Resolutions Nos. 09-2020 and 12-2020, all Electronic-Bids must be duly received by the Bids and Awards Committee (BAC) Secretariat, through the designated bidms.dap.edu.ph secured account on or before 19 November 2024 and not later than 9:30AM. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in ITB Clause14. LATE BIDS SHALL NOT BE ACCEPTED.
- 5. Bid opening shall be on 19 November 2024, 10:00AM via Google Meet Platform. Electronic-bids will be opened in the presence of the bidders' authorized representative/s who are authorized to attend the proceedings, as evidenced by the Bidders' Notarized Letter of Authorization (LOA). The Authorized Representative is a person who has been authorized by the company's owner, board, or management, and via a notarized document, to represent the company, to ask questions, answer questions, and make decisions on behalf of the company during the bid opening.
- 6. The **DAP** reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time in accordance with the provisions of RA 9184 and its IRR, without thereby incurring any liability to the affected bidder or bidders.
- 7. For further information, please refer to:

RODEL DV. CASTILLO

Officer-in-Charge, BAC Secretariat Division

Development Academy of the Philippines



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1st Floor DAP Bldg., San Miguel Avenue, Pasig City 1600

Telephone No.

BAC Secretariat email
Website address:

: (632) 8631-0921 loc. 133
: dapbacsec@dap.edu.ph
: https://www.dap.edu.ph

8. You may visit the following websites:

For downloading of Official Bidding Documents:

https://www.dap.edu.ph/invitation-to-bid/

For online bid submission: http://bidms.dap.edu.ph/page/

For the guidance and information of all concerned.

ALAN S. CAJES
CHAIRPERSON, BIDS & AWARDS COMMITTEE 2 (SO No.2024-038)
>>>Nothing Follows<<

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Annex "A" - Revised Form 2 - Price Schedule ..... **Page 1 of 27** 

# Bidder's LETTERHEAD

## FORM 2: PRICE SCHEDULE

(AS PER GPPB RESOLUTION NO. 16-2020)

#### INSTRUCTIONS to BIDDERS:

- O1. This form should be accomplished using the Bidder's letterhead, signed copy should be submitted as part of the Financial Component Marked as "FC02";
  O2. The signed copy of this document (in PDF or JPEG Format) must be part of the electronic files that should be contained in the submitted electronic bid;
  O3. DO NOT LEAVE BLANK CELLS. KINDLY PUT NIA IF "NOT APPLICABLE";
  O4. KINDLY USE ADDITIONAL SHEETS IF NECESSARY; AND

Invitation to Bid Number: IB24-414429-03

Name of Bidder:

05. THE FILENAME STRUCTURE SHOULD BE "FC02\_XXX=PRICE\_SCHEDULE=<BIDDERNAME>".

### FOR GOODS OFFERED FROM WITHIN THE PHILIPPINES

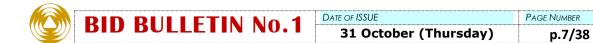
Page \_\_\_ of \_\_\_.

1	2	3	4	5	6	7	8	9	10
Item	Description	Country of origin	Quantity/ unit	Unit price EXW per item	Transporta tion and Insurance and all other costs incidental to delivery, per item	Sales and other taxes payable if Contract is awarded, per item	Cost of Incidenta I Services, if applicabl e, per item	Total Price, per unit (col 5+6+7+8	Total Price delivered Final Destination (col 9) x (col 4)
1.0	Audit the DAP existing network design and submit findings to the DAP ICTD		1/lot						
	Submit the proposed network architecture, design and engineering plan, sign and sealed by Professional Electronics and Communication Engineer (PECE) in 20x30-4sets, A3-5sets and CAD file								
2.1	Supply, installation, testing, configuration, and testing of twenty-three (23) network switches, one (1) core switch, one (1), distribution switch, twenty-one (21) access switches		1/lot						



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" - Revised Form 2 - F	rice Sche	dule	 Pa
2.1 CORE SWITCH -	1/unit		
COPPER:			
24×10/100/1000Mbps GbE			
PoE/PoE+ ports, 2x1 GbE			
RJ45 uplink ports, 4×1GbE			
SFP uplink ports, switch's			
uplink ports are upgradeable into 2x10GbE SFP+ ports or			
4x10GbE SFP+ ports via			
license, able to be managed			
or configured through CLI,			
GUI, WLAN controller or			
cloud, 1,020 Gbps of			
switching capacity and 759			
Mpps forwarding capacity,			
allows the user to perform			
software upgrades to the			
switches in the stack			
without service interruption,			
able to stack up to twelve			
switches into a single			
logical switch, up to 2.4			
Tbps of aggregated stacking bandwidth, capable of long			
distance stacking up to 10			
km using standard optics or			
cables, does not need			
hardware module to have			
stacking feature and is			
capable of Hot			
insertion/removal of stack			
members, offer a "silent			
mode" configuration option,			
enabling these switches to			
operate with the fan			
disabled for silent operation,			
sFlow-based network			
monitoring, Command Line			
Interface (CLI), Secure Shell (SSHv2), Secure Copy			
(SCP), and SNMPv3,			
Access Controller Access			
Control System			
(TACACS/TACACS+) and			
RADIUS authentication,			
LLDP and LLDP-MED			
protocol support, VLAN			
support and tagging support			
IEEE 802.1Q (4095 VLAN			
IDs), IPv4 and IPv6 static			
routes - RIP v1/v2, RIPng,			
ECMP, Port-based Access		1	



Control Lists, Layer 3/Layer		
4 ACLs, Host routes, Virtual Interfaces, Routed Interfaces, Route-only Support, Routing Between Directly Connected Subnets, advance L3 routing protocols, can be upgraded using L3 advance license, support for third-party transceivers, 1G,10G, 40G and 100G transceivers and stacking cables		
2.2 ONE (1) UNIT DISTRIBUTION SWITCH - FIBER: 24×1/10Gbps SPF/SFP+ ports, 40GbE QSFP+ uplink-ports, can add a modular slot 4×1/10 GbE SFP/SFP+ uplink-ports, 40GbE QSFP+ or 100GbE QSFP28 uplink ports, able to be managed or configured through CLI, GUI, WLAN controller or cloud, 1020 Gbps of switching capacity and 759 Mpps forwarding capacity, allows the user to perform software upgrades to the switches in the stack without service interruption, allows the user to perform software upgrades to the switches in the stack without service interruption, able to stack up to twelve switches into a single logical switch, up to 2.4 Tbps of aggregated stacking bandwidth, capable of long distance stacking up to 10 km using standard optics or cables, does not need hardware module to have stacking feature and is capable of Hot insertion/removal of stack members, offer a "silent mode" configuration option, enabling these switches to	1/unit	



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-	Revised Form 2 -	-1.00 00		<u> </u>				a (
<u> </u>	operate with the fan		П			T	<u> </u>	
	disabled for silent operation,							
	sFlow-based network							
	monitoring, Command Line							
	Interface (CLI), Secure							
	Shell (SSHv2), Secure Copy (SCP), and SNMPv3,							
	Access Controller Access							
	Control System							
	(TACACS/TACACS+) and							
	RADIUS authentication,							
	LLDP and LLDP-MED							
	protocol support, VLAN							
	support and tagging support							
	IEEE 802.1Q (4095 VLAN IDs), IPv4 and IPv6 static							
	routes - RIP v1/v2, RIPng,							
	ECMP, Port-based Access							
	Control Lists, Layer 3/Layer							
	4 ACLs, Host routes,							
	Virtual Interfaces, Routed							
	Interfaces, Route-only							
	Support, Routing Between Directly Connected							
	Subnets, advance L3 ready							
	for advance L3 routing							
	protocols, can be upgraded							
	using L3 advance license,							
	support for third-party							
	transceivers, 1G,10G, 40G							
	and 100G transceivers and							
	stacking cables					ļ		
2.3	TWELVE (12) UNITS POE	12/unit						
	FOR IDFs - ACCESS SWITCH:	s						
	24×10/100/1000Mbps GbE							
	PoE/PoE+ ports, 2x1 GbE							
	RJ45 uplink ports, 4×1GbE							
	SFP uplink ports, switch's							
	uplink ports are upgradeable							
	into 2x10GbE SFP+ ports or							
	4x10GbE SFP+ ports via							
	license, 132 Gbps of switching capacity and 98							
	Mpps forwarding capacity,							
	allows upgrades to the							
	switches in the stack							
	without service interruption,							
	able to stack up to twelve							
	switches into a single							
	logical switch, up to 480							
<b>.</b>	Gbps of aggregated stacking	L	LL		L	<u> </u>	.L	L



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handwidth assable -f	long	Т	I	 T	1
bandwidth, capable of distance stacking up t					
km using standard opti					
cables, does not					
hardware module to					
stacking feature and					
capable of	Hot				
insertion/removal of	stack				
members, offer a "s					
mode" configuration or					
enabling these switche					
operate with the	fan				
disabled for silent opera					
	work				
monitoring, Command Interface (CLI), Se	ecure				
Shell (SSHv2), Secure (					
(SCP), and SNM					
Access Controller Ac					
	stem				
(TACACS/TACACS+)	and				
RADIUS authentica					
LLDP and LLDP-1	35765363C				
protocol support, V.					
support and tagging sup	pport				
IEEE 802.1Q (4095 V					
	ltiple				
1 0	O2.1x Auto				
MDI/MDIX, BPDU G					
Root Guard, Dual-N					
VLANs, MAC-t					
VLANs, Dynamic M					
based VLAN activa					
Dynamic V.	LAN				
Assignment, Fast Port S					
802.1s Multiple Span					
Tree, IGMP Snoo					
(v1/v2/v3), IGMP Prox					
Static Groups, IGMP v	1000				
Fast Leave, Inter-Pa Gap (IPG) adjustment,					
	LFS),				
MAC Address Filte					
MAC Learning Dis					
Multi-device	uore,				
Authentication, Per-V	LAN				
Spanning	Tree				
(PVST/PVST+/PRST),					
Mirroring: Port-b					
ACL-based, MAC F	ilter-				
based and VLAN-based	ased.				



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	PIM-SM v2 Snooping, Port	T		I		T	T	T
	Loop Detection, Private							
	VLAN, Remote Fault							
	Notification (RFN), Single							
	instance Spanning Tree,							
	Trunk Groups (static,							
	LACP), Uni-Directional Link Detection (UDLD),							
	Metro-Ring Protocol (MRP)							
	(v1, v2), Virtual Switch							
	Redundancy Protocol							
	(VSRP), Q-in-Q and							
	selective Q-in-Q, VLAN							
	Mapping, Topology							
	Groups, IPv4 and IPv6 static							
	routes - RIP v1/v2, RIPng, ECMP, Port-based Access							
	Control Lists, Layer 3/Layer							
	4 ACLs, Host routes,							
	Virtual Interfaces, Routed							
	Interfaces, Route-only							
	Support, Routing Between							
	Directly Connected							
	Subnets, support for third-							
	party transceivers, 1G or 10G and stacking cables							
					 	ļ		
2.4	SEVEN (7) UNITS POE		7/units					
	FOR IDF - ACCESS SWITCH:							
	48×10/100/1000Mbps GbE							
	PoE/PoE+ ports, 2x1 GbE							
	RJ45 uplink ports, 4×1GbE							
	SFP uplink ports, switch's							
	uplink ports are upgradeable							
	into 2x10GbE SFP+ ports or							
	4x10GbE SFP+ ports via							
	license, able to be managed or configured through CLI,							
	GUI, WLAN controller or							
	cloud, 180 Gbps of							
	switching capacity and 134							
	Mpps forwarding capacity,							
	perform software upgrades							
	to the switches in the stack							
	without service interruption,							
	able to stack up to twelve switches into a single							
	logical switch, up to 480							
	Gbps of aggregated stacking							
	bandwidth, capable of long							
	distance stacking up to 10							
l	km using standard optics or							



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cable	s, does not need	I	T		T
	vare module to have				
	ng feature and is				
capab					
	ion/removal of stack				
	pers, offer a "silent				
	" configuration option,				
	ing these switches to				
	te with the fan				
	led for silent operation,				
	-based network				
	oring, Command Line				
	ace (CLI), Secure				
	(SSHv2), Secure Copy				
(SCP	), and SNMPv3, ss Controller Access				
Conti	and " accept to the transfer and accept the Million and Acceptance of				
30.000000000000000000000000000000000000	ACS/TACACS+) and				
RAD					
	and LLDP-MED				
	col support, VLAN				
	ort and tagging support				
	802.1Q (4095 VLAN				
IDs),	802.1s Multiple				
Span	ning Tree, 802.1x				
Auth	entication, Auto				
100000000000000000000000000000000000000	MDIX, BPDU Guard,				
	Guard, Dual-Mode				
VLA					
	Ns, Dynamic MAC-				
	VLAN activation,				
Dyna					
	nment, Fast Port Span, s Multiple Spanning				
Tree,					
	2/v3), IGMP Proxy for				
	Groups, IGMP v2/v3				
	Leave, Inter-Packet				
	IPG) adjustment, Link				
Fault					
MAC	Address Filtering,				
MAC	Learning Disable,				
Multi	-device				
Autho	entication, Per-VLAN				
Span					
	T/PVST+/PRST),				
Mirro					
	based, MAC Filter-				
	and VLAN-based,				
	SM v2 Snooping, Port				
	Detection, Private				
VLA	N, Remote Fault				



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	Notification (RFN), Single		T		T	I
	instance Spanning Tree,					
	Trunk Groups (static,					
	LACP), Uni-Directional					
	Link Detection (UDLD),					
	Metro-Ring Protocol (MRP) (v1, v2), Virtual Switch					
	Redundancy Protocol					
	(VSRP), Q-in-Q and					
	selective Q-in-Q, VLAN					
	Mapping, Topology					
	Groups, IPv4 and IPv6 static					
	routes - RIP v1/v2, RIPng, ECMP, Port-based Access					
	Control Lists, Layer 3/Layer					
	4 ACLs, Host routes,					
	Virtual Interfaces, Routed					
	Interfaces, Route-only					
	Support, Routing Between Directly Connected					
	Subnets, support for third-					
	party transceivers, 1G or					
	10G and stacking cables					
2.5	ONE (1) UNIT POE FOR	1/unit	·	 		 
	MDF - ACCESS SWITCH:					
	24×10/100/1000Mbps GbE					
	PoE/PoE+ ports, 2x1 GbE RJ45 uplink ports, 4×1GbE					
	SFP uplink ports, switch's					
	uplink ports are upgradeable					
	into 2x10GbE SFP+ ports or					
	4x10GbE SFP+ ports via					
	license, 132 Gbps of switching capacity and 98					
	Mpps forwarding capacity,					
	allows upgrades to the					
	switches in the stack					
	without service interruption,					
	able to stack up to twelve					
	switches into a single logical switch, up to 480					
	Gbps of aggregated stacking					
	bandwidth, capable of long					
	distance stacking up to 10					
	km using standard optics or					
	cables, does not need					
	hardware module to have					
	stacking feature and is capable of Hot					
	insertion/removal of stack					
	members, offer a "silent					
1	mode" configuration option,					



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enabling these switches to			
operate with the fan			
disabled for silent operation,			
sFlow-based network			
monitoring, Command Line Interface (CLI), Secure			
Shell (SSHv2), Secure Copy			
(SCP), and SNMPv3,			
Access Controller Access			
Control System			
(TACACS/TACACS+) and			
RADIUS authentication,			
LLDP and LLDP-MED			
protocol support, VLAN			
support and tagging support IEEE 802.1Q (4095 VLAN			
IDs), 802.1s Multiple			
Spanning Tree, 802.1x			
Authentication, Auto			
MDI/MDIX, BPDU Guard,			
Root Guard, Dual-Mode			
VLANs, MAC-based			
VLANs, Dynamic MAC-			
based VLAN activation,			
Dynamic VLAN Assignment, Fast Port Span,			
802.1s Multiple Spanning			
Tree, IGMP Snooping			
(v1/v2/v3), IGMP Proxy for			
Static Groups, IGMP v2/v3			
Fast Leave, Inter-Packet			
Gap (IPG) adjustment, Link			
Fault Signaling (LFS),			
MAC Address Filtering, MAC Learning Disable,			
Multi-device			
Authentication, Per-VLAN			
Spanning Tree			
(PVST/PVST+/PRST),			
Mirroring: Port-based,			
ACL-based, MAC Filter-			
based and VLAN-based,			
PIM-SM v2 Snooping, Port			
Loop Detection, Private VLAN, Remote Fault			
Notification (RFN), Single			
instance Spanning Tree,			
Trunk Groups (static,			
LACP), Uni-Directional			
Link Detection (UDLD),			
Metro-Ring Protocol (MRP)			
(v1, v2), Virtual Switch			1



	Redundancy Protocol		T	T	
	(VSRP), Q-in-Q and				
	selective Q-in-Q, VLAN Mapping, Topology				
	Groups, IPv4 and IPv6 static				
	routes - RIP v1/v2, RIPng,				
	ECMP, Port-based Access Control Lists, Layer 3/Layer				
	4 ACLs, Host routes,				
	Virtual Interfaces, Routed Interfaces, Route-only				
	Support, Routing Between				
	Directly Connected				
	Subnets, support for third- party transceivers, 1G or				
	10G and stacking cables				
2.6	ONE (1) UNIT SERVER	1/unit			$\neg$
	FARM SWITCH: 48×10/100/1000Mbps GbE				
	PoE/PoE+ ports, 2x1 GbE				
	RJ45 uplink ports, 4×1GbE				
	SFP uplink ports, switch's uplink ports are upgradeable				
	into 2x10GbE SFP+ ports or				
	4x10GbE SFP+ ports via license, able to be managed				
	or configured through CLI,				
	GUI, WLAN controller or				
	cloud, 180 Gbps of switching capacity and 134				
	Mpps forwarding capacity,				
	perform software upgrades to the switches in the stack				
	without service interruption,				
	able to stack up to twelve				
	switches into a single logical switch, up to 480				
	Gbps of aggregated stacking				
	bandwidth, capable of long				
	distance stacking up to 10 km using standard optics or				
	cables, does not need				
	hardware module to have stacking feature and is				
	capable of Hot				
	insertion/removal of stack				
	members, offer a "silent mode" configuration option,				
	enabling these switches to				
	operate with the fan				
	disabled for silent operation, sFlow-based network				



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<u>A" – Re</u>	evised Form 2 -	Price S	sched	ule	 		Page '
I I	oitarina Cammand Lina	Т	Т	T			
	nitoring, Command Line erface (CLI), Secure						
	ll (SSHv2), Secure Copy						
	P), and SNMPv3,						
	ess Controller Access						
Con	ntrol System						
(TA	CACS/TACACS+) and						
RA	DIUS authentication,						
1000 - 30	DP and LLDP-MED						
	tocol support, VLAN						
	port and tagging support						
The second secon	E 802.1Q (4095 VLAN ), 802.1s Multiple						
	), 802.1s Multiple nning Tree, 802.1x						
	hentication, Auto						
	DI/MDIX, BPDU Guard,						
	ot Guard, Dual-Mode						
	ANs, MAC-based						
VL	ANs, Dynamic MAC-						
(3)(0)(0)(0)	ed VLAN activation,						
	namic VLAN						
	ignment, Fast Port Span,						
	.1s Multiple Spanning e, IGMP Snooping						
	v2/v3), IGMP Proxy for						
	ic Groups, IGMP v2/v3						
	t Leave, Inter-Packet						
	(IPG) adjustment, Link						
	lt Signaling (LFS),						
	.C Address Filtering,						
	.C Learning Disable,						
	hentication, Per-VLAN						
100000	nning Tree						
	ST/PVST+/PRST),						
Mii	roring: Port-based,						
	L-based, MAC Filter-						
	ed and VLAN-based,						
	I-SM v2 Snooping, Port						
	p Detection, Private						
	AN, Remote Fault ification (RFN), Single						
	ance Spanning Tree,						
Tru							
	CP), Uni-Directional						
Lin	k Detection (UDLD),						
	tro-Ring Protocol (MRP)						
(v1	, v2), Virtual Switch						
	lundancy Protocol						
	SRP), Q-in-Q and						
	ective Q-in-Q, VLAN						
Ma	pping, Topology		1 1		- 1	1	- 1



# Annex "A" - Revised Form 2 - Price Schedule ...... Page 12 of 27

	Groups, IPv4 and IPv6 static routes - RIP v1/v2, RIPng, ECMP, Port-based Access Control Lists, Layer 3/Layer 4 ACLs, Host routes, Virtual Interfaces, Routed Interfaces, Route-only Support, Routing Between Directly Connected Subnets, support for third-party transceivers, 1G or 10G and stacking cables				
2.7	FIFTY (50) UNITS TRANSCEIVER: 1000Base-SX SFP optic, MMF, LC connector, Optical Monitoring Capable	50/unit s			
3	Supply of Network switches complete with compatible accessories such as Small Form-factor Pluggable (SFP) modules, support and license, fans, power cords, centralized monitoring	1/lot			
4	Supply, installation, termination, and testing with test results, of CAT6 cables or fiber optic cables as per project specifications.  Optical Time Domain Reflectometer for fiber optic cables and Fluke tester for copper cables.	1/lot			
5	Install patch panels, racks and cabinets as required;	1/lot			
6	Network engineering configurations, activations and connectivity. Finalization of Network Structures, submission of as-built design in 20x30 digiblue	1/lot			

7 Provision of Technical Training, Overview and knowledge transfer to ten(10) DAP Officer / Staff Provide one(1) year warranty support with monthly system and connectivity checkup and monitoring with 24/7 on-call and on-site support	1/lot				
Certificate of Warranty to DAP (End User) on all supplied equipment and cabling for one (1) year or as per manufacturer's standard and post-					
installation support for one (1) year.					
			TOTAL AN	10UNT:	
		Yours	s sincerely,		
SIGNATURE OF THE AUTHORIZED REPRES  NAME OF THE AUTHORIZED REPRES					
POSITION TITLE OF SIG	***************************************				



	For G	SOOD	s Offi	ERED F	ROM A	BROAD	)	
Nam	e of Bidder:						Page of	
	ation to Bid Number: <u>IB24</u> -4	14429	03	<del></del> 1;			· —	
1	2	3	4	5	6	7	8	9
Item	Description	Country of origin	Quantity/ unit	Unit price EXW per item	Transportati on and Insurance and all other costs incidental to delivery, per item	Sales and other taxes payable if Contract is awarded, per item	Cost of Incidental Services, if applicable, per item	Total Price, per unit (col 5+6+7+8
1.0	Audit the DAP existing network design and submit findings to the DAP ICTD		1/lot					
	Submit the proposed network architecture, design and engineering plan, sign and sealed by Professional Electronics							
	and Communication Engineer (PECE) in 20x30- 4sets, A3-5sets and CAD file							
2.1	Supply, installation, testing, configuration, and testing of twenty-three (23) network switches, one (1) core switch, one (1), distribution switch, twenty-one (21) access switches		1/lot					
2.1	<del> </del>		1/unit					
	managed or configured through CLI, GUI, WLAN controller or cloud, 1,020 Gbps of switching capacity and 759 Mpps forwarding capacity, allows the user							



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to perform software	T	T	Т		1
upgrades to the switches					
in the stack without					
service interruption, able					
to stack up to twelve					
switches into a single					
logical switch, up to 2.4					
The of aggregated					
stacking bandwidth, capable of long distance					
stacking up to 10 km					
using standard optics or					
cables, does not need					
hardware module to have					
stacking feature and is					
capable of Hot					
insertion/removal of stack					
members, offer a "silent					
mode" configuration					
option, enabling these switches to operate with					
the fan disabled for silent					
operation, sFlow-based					
network monitoring,					
Command Line Interface					
(CLI), Secure Shell					
(SSHv2), Secure Copy					
(SCP), and SNMPv3,					
Access Controller Access					
Control System (TACACS/TACACS+)					
and RADIUS					
authentication, LLDP and					
LLDP-MED protocol					
support, VLAN support					
and tagging support IEEE					
802.1Q (4095 VLAN					
IDs), IPv4 and IPv6 static					
routes - RIP v1/v2, RIPng,					
ECMP, Port-based Access					
Control Lists, Layer					
3/Layer 4 ACLs, Host routes, Virtual Interfaces,					
Routed Interfaces, Route-					
only Support, Routing					
Between Directly					
Connected Subnets,					
advance L3 ready for					
advance L3 routing					
protocols, can be					
upgraded using L3					
advance license, support		<u>l</u>		L	J



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Aillick A - Nevisca i offil 2 - i floc ocheadic	I ago IO OI ZI

	for third-party					
	transceivers, 1G,10G, 40G					
	and 100G transceivers and					
	stacking cables					
2.2	ONE (1) UNIT		1/unit	 	 	
	DISTRIBUTION					
	SWITCH - FIBER:					
	24×1/10Gbps SPF/SFP+					
	ports, 40GbE QSFP+					
	uplink-ports, can add a					
	modular slot 4×1/10 GbE					
	SFP/SFP+ uplink-ports,					
	40GbE QSFP+ or 100GbE					
	QSFP28 uplink ports, able					
	to be managed or					
	configured through CLI,					
	GUI, WLAN controller or					
	cloud, 1020 Gbps of					
	switching capacity and					
	759 Mpps forwarding					
	capacity, allows the user					
	to perform software					
	upgrades to the switches					
	in the stack without					
	service interruption,					
	allows the user to perform					
	software upgrades to the					
	switches in the stack					
	without service					
	interruption, able to stack					
	up to twelve switches into					
	a single logical switch, up					
	to 2.4 Tbps of aggregated					
	stacking bandwidth,					
	capable of long distance					
	stacking up to 10 km					
	using standard optics or					
	cables, does not need					
	hardware module to have					
1	stacking feature and is					
1	capable of Hot					
1	insertion/removal of stack					
	members, offer a "silent					
	mode" configuration					
	option, enabling these					
	switches to operate with					
	the fan disabled for silent					
1	operation, sFlow-based					
	network monitoring,					
	Command Line Interface					
	(CLI), Secure Shell					
	(SSHv2), Secure Copy	CONT. 1200 CO. 1200 CO.				



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	(SCP), and SNMPv3,				
	Access Controller Access				
	Control System (TACACS/TACACS+)				
	and RADIUS				
	authentication, LLDP and				
	LLDP-MED protocol				
	support, VLAN support and tagging support IEEE				
	802.1Q (4095 VLAN				
	IDs), IPv4 and IPv6 static				
	routes - RIP v1/v2, RIPng,				
	ECMP, Port-based Access				
	Control Lists, Layer 3/Layer 4 ACLs, Host				
	routes, Virtual Interfaces,				
	Routed Interfaces, Route-				
	only Support, Routing				
	Between Directly Connected Subnets,				
	advance L3 ready for				
	advance L3 routing				
	protocols, can be				
	upgraded using L3				
	advance license, support for third-party				
	transceivers, 1G,10G, 40G				
	and 100G transceivers and				
	stacking cables		 		
2.3	TWELVE (12) UNITS POE FOR IDFs -	12/units			
	ACCESS SWITCH:				
	24×10/100/1000Mbps				
	GbE PoE/PoE+ ports, 2x1				
	GbE RJ45 uplink ports,				
	4×1GbE SFP uplink ports, switch's uplink ports are				
	upgradeable into				
	2x10GbE SFP+ ports or				
	4x10GbE SFP+ ports via				
	license, 132 Gbps of switching capacity and 98				
	Mpps forwarding				
	capacity, allows upgrades				
	to the switches in the				
	stack without service interruption, able to stack				
	up to twelve switches into				
	a single logical switch, up				
	to 480 Gbps of aggregated				
	stacking bandwidth,				
	capable of long distance				



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stacking up to 10 km	T			
using standard optics or				
cables, does not need				
hardware module to have				
stacking feature and is				
capable of Hot				
insertion/removal of stack				
members, offer a "silent				
mode" configuration				
option, enabling these				
switches to operate with				
the fan disabled for silent				
operation, sFlow-based				
network monitoring,				
Command Line Interface				
(CLI), Secure Shell				
(SSHv2), Secure Copy				
(SCP), and SNMPv3,				
Access Controller Access				
Control System				
(TACACS/TACACS+)				
and RADIUS				
authentication, LLDP and				
LLDP-MED protocol support, VLAN support				
and tagging support IEEE				
802.1Q (4095 VLAN				
IDs), 802.1s Multiple				
Spanning Tree, 802.1x				
Authentication, Auto				
MDI/MDIX, BPDU				
Guard, Root Guard, Dual-				
Mode VLANs, MAC-				
based VLANs, Dynamic				
MAC-based VLAN				
activation, Dynamic				
VLAN Assignment, Fast				
Port Span, 802.1s				
Multiple Spanning Tree,				
IGMP Snooping				
(v1/v2/v3), IGMP Proxy				
for Static Groups, IGMP				
v2/v3 Fast Leave, Inter-				
Packet Gap (IPG)				
adjustment, Link Fault				
Signaling (LFS), MAC				
Address Filtering, MAC				
Learning Disable, Multi-				
device Authentication,				
Per-VLAN Spanning Tree		[		
(PVST/PVST+/PRST),				
Mirroring: Port-based,				

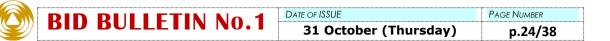


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ACL-b	ased, MAC Filter-	Т				
based a	nd VLAN-based,					
	M v2 Snooping,					
	oop Detection,					
	VLAN, Remote					
	Iotification (RFN),					
	instance Spanning runk Groups					
	LACP), Uni-					
	onal Link					
The comment of the	on (UDLD),					
Metro-	Ring Protocol					
	(v1, v2), Virtual					
	Redundancy					
	ol (VSRP), Q-in-Q					
	ective Q-in-Q, Mapping,					
	gy Groups, IPv4					
	6 static routes -					
	/v2, RIPng, ECMP,					
Port-ba	sed Access Control					
	Layer 3/Layer 4					
	Host routes,					
	Interfaces, Routed					
	ces, Route-only t, Routing Between					
	y Connected					
	s, support for third-					
	ansceivers, 1G or					
10G an	d stacking cables					
E5-69 (E)	N (7) UNITS POE	- 1	7/units			
	OF - ACCESS					
SWITO	H: 100/1000Mbps					
	oE/PoE+ ports, 2x1					
	J45 uplink ports,					
	E SFP uplink ports,					
	s uplink ports are					
	eable into					
	bE SFP+ ports or					
	bE SFP+ ports via					
	, able to be					
through	ed or configured n CLI, GUI,					
	controller or					
	180 Gbps of					
switchi	ng capacity and					
	ops forwarding					
	y , perform					
	e upgrades to the					
	es in the stack					
withou	t service					

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interruption, able to stack		19011770001770001770001770		
up to twelve switches into				
a single logical switch, up				
to 480 Gbps of aggregated				
stacking bandwidth,				
capable of long distance				
stacking up to 10 km				
using standard optics or				
cables, does not need				
hardware module to have				
stacking feature and is				
capable of Hot				
insertion/removal of stack				
members, offer a "silent				
mode" configuration				
option, enabling these				
switches to operate with				
the fan disabled for silent				
operation, sFlow-based				
network monitoring,				
Command Line Interface				
(CLI), Secure Shell				
(SSHv2), Secure Copy				
(SCP), and SNMPv3,				
Access Controller Access				
Control System				
(TACACS/TACACS+)				
and RADIUS				
authentication, LLDP and				
LLDP-MED protocol				
support, VLAN support				
and tagging support IEEE				
802.1Q (4095 VLAN				
IDs), 802.1s Multiple				
Spanning Tree, 802.1x				
Authentication, Auto				
MDI/MDIX, BPDU				
Guard, Root Guard, Dual-				
Mode VLANs, MAC-				
based VLANs, Dynamic				
MAC-based VLAN				
activation, Dynamic				
VLAN Assignment, Fast				
Port Span, 802.1s				
Multiple Spanning Tree,				
IGMP Snooping				
(v1/v2/v3), IGMP Proxy				
for Static Groups, IGMP				
v2/v3 Fast Leave, Inter-				
Packet Gap (IPG)				
adjustment, Link Fault				
Signaling (LFS), MAC				



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5 (6.000)	Address Filtering, MAC					
	Learning Disable, Multi-					
	device Authentication,					
	Per-VLAN Spanning Tree					
	(PVST/PVST+/PRST),					
	Mirroring: Port-based, ACL-based, MAC Filter-					
	based and VLAN-based,					
	PIM-SM v2 Snooping,					
	Port Loop Detection,					
	Private VLAN, Remote					
	Fault Notification (RFN),					
	Single instance Spanning					
	Tree, Trunk Groups					
	(static, LACP), Uni- Directional Link					
	Detection (UDLD),					
	Metro-Ring Protocol					
	(MRP) (v1, v2), Virtual					
	Switch Redundancy					
	Protocol (VSRP), Q-in-Q					
	and selective Q-in-Q,					
	VLAN Mapping,					
	Topology Groups, IPv4 and IPv6 static routes -					
	RIP v1/v2, RIPng, ECMP,					
	Port-based Access Control					
	Lists, Layer 3/Layer 4					
	ACLs, Host routes,					
	Virtual Interfaces, Routed					
	Interfaces, Route-only					
	Support, Routing Between					
	Directly Connected Subnets, support for third-					
	party transceivers, 1G or					
	10G and stacking cables					
2.5		1	/unit		1	
	MDF - ACCESS					
	SWITCH:					
	24×10/100/1000Mbps					
	GbE PoE/PoE+ ports, 2x1					
	GbE RJ45 uplink ports,					
	4×1GbE SFP uplink ports, switch's uplink ports are					
	upgradeable into					
	2x10GbE SFP+ ports or					
	4x10GbE SFP+ ports via					
	license, 132 Gbps of					
	switching capacity and 98					
	Mpps forwarding					
	capacity, allows upgrades					
1	to the switches in the	1			2	



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stack without service	Т	T	T	1
interruption, able to stack				
up to twelve switches into				
a single logical switch, up				
to 480 Gbps of aggregated				
stacking bandwidth,				
capable of long distance				
stacking up to 10 km				
using standard optics or				
cables, does not need				
hardware module to have				
stacking feature and is				
capable of Hot				
insertion/removal of stack				
members, offer a "silent				
mode" configuration				
option, enabling these				
switches to operate with				
the fan disabled for silent				
operation, sFlow-based				
network monitoring,				
Command Line Interface				
(CLI), Secure Shell				
(SSHv2), Secure Copy				
(SCP), and SNMPv3,				
Access Controller Access				
Control System				
(TACACS/TACACS+)				
and RADIUS				
authentication, LLDP and				
LLDP-MED protocol				
support, VLAN support				
and tagging support IEEE				
802.1Q (4095 VLAN				
IDs), 802.1s Multiple				
Spanning Tree, 802.1x Authentication, Auto				
MDI/MDIX, BPDU				
Guard, Root Guard, Dual-				
Mode VLANs, MAC-				
based VLANs, Dynamic				
MAC-based VLAN				
activation, Dynamic				
VLAN Assignment, Fast				
Port Span, 802.1s				
Multiple Spanning Tree,				
IGMP Snooping				
(v1/v2/v3), IGMP Proxy				
for Static Groups, IGMP				
v2/v3 Fast Leave, Inter-				
Packet Gap (IPG)				
adjustment, Link Fault				
adjustinent, Link Fault		· · · · · · · · · · · · · · · · · · ·		



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51 (00000000	Signaling (LFS), MAC	Т		I	T	T	T	T	
	Address Filtering, MAC								
	Learning Disable, Multi-								
	device Authentication,								
	Per-VLAN Spanning Tree								
	(PVST/PVST+/PRST),								
	Mirroring: Port-based,								
	ACL-based, MAC Filter-								
	based and VLAN-based,								
	PIM-SM v2 Snooping, Port Loop Detection,								
	Private VLAN, Remote								
	Fault Notification (RFN),								
	Single instance Spanning								
	Tree, Trunk Groups								
	(static, LACP), Uni-								
	Directional Link								
	Detection (UDLD),								
	Metro-Ring Protocol								
	(MRP) (v1, v2), Virtual Switch Redundancy								
	Protocol (VSRP), Q-in-Q								
	and selective Q-in-Q,								
	VLAN Mapping,								
	Topology Groups, IPv4								
	and IPv6 static routes -								
	RIP v1/v2, RIPng, ECMP,								
	Port-based Access Control								
	Lists, Layer 3/Layer 4								
	ACLs, Host routes, Virtual Interfaces, Routed								
	Interfaces, Route-only								
	Support, Routing Between								
	Directly Connected								
	Subnets, support for third-								
	party transceivers, 1G or								
	10G and stacking cables								
2.6	ONE (1) UNIT SERVER		1/unit						
	FARM SWITCH:								
	48×10/100/1000Mbps								
	GbE PoE/PoE+ ports, 2x1 GbE RJ45 uplink ports,								
	4×1GbE SFP uplink ports,								
	switch's uplink ports are								
	upgradeable into								
	2x10GbE SFP+ ports or								
	4x10GbE SFP+ ports via								
	license, able to be								
	managed or configured								
	through CLI, GUI,								
	WLAN controller or								
	cloud, 180 Gbps of								ĺ



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switching capacity and			
134 Mpps forwarding			
capacity , perform software upgrades to the			
switches in the stack			
without service			
interruption, able to stack			
up to twelve switches into			
a single logical switch, up			
to 480 Gbps of aggregated			
stacking bandwidth, capable of long distance			
stacking up to 10 km			
using standard optics or			
cables, does not need			
hardware module to have			
stacking feature and is			
capable of Hot insertion/removal of stack			
members, offer a "silent			
mode" configuration			
option, enabling these			
switches to operate with			
the fan disabled for silent			
operation, sFlow-based network monitoring,			
Command Line Interface			
(CLI), Secure Shell			
(SSHv2), Secure Copy			
(SCP), and SNMPv3,			
Access Controller Access Control System			
(TACACS/TACACS+)			
and RADIUS			
authentication, LLDP and			
LLDP-MED protocol			
support, VLAN support			
and tagging support IEEE 802.1Q (4095 VLAN			
IDs), 802.1s Multiple			
Spanning Tree, 802.1x			
Authentication, Auto			
MDI/MDIX, BPDU			
Guard, Root Guard, Dual- Mode VLANs, MAC-			
based VLANs, Dynamic			
MAC-based VLAN			
activation, Dynamic			
VLAN Assignment, Fast			
Port Span, 802.1s			
Multiple Spanning Tree,			
IGMP Snooping			



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l	(v1/v2/v3), IGMP Proxy		T	T			T
	for Static Groups, IGMP						
	v2/v3 Fast Leave, Inter-						
	Packet Gap (IPG)						
	adjustment, Link Fault						
	Signaling (LFS), MAC						
	Address Filtering, MAC						
	Learning Disable, Multi-						
	device Authentication,						
	Per-VLAN Spanning Tree						
	(PVST/PVST+/PRST),						
	Mirroring: Port-based,						
	ACL-based, MAC Filter-						
	based and VLAN-based,						
	PIM-SM v2 Snooping,						
l	Port Loop Detection,					1	1
l	Private VLAN, Remote					1	1
l	Fault Notification (RFN),					1	1
l	Single instance Spanning					1	1
l	Tree, Trunk Groups					1	1
	(static, LACP), Uni-						
	Directional Link						
	Detection (UDLD),						
	Metro-Ring Protocol						
	(MRP) (v1, v2), Virtual						
	Switch Redundancy						
	Protocol (VSRP), Q-in-Q						
	and selective Q-in-Q,						
	VLAN Mapping,						
	Topology Groups, IPv4						
	and IPv6 static routes -						
	RIP v1/v2, RIPng, ECMP,						
l	Port-based Access Control					1	1
l	Lists, Layer 3/Layer 4						
l	ACLs, Host routes,					1	1
l	Virtual Interfaces, Routed					1	1
l	Interfaces, Route-only					1	1
l	Support, Routing Between					1	1
l	Directly Connected					1	1
l	Subnets, support for third-						
l	party transceivers, 1G or					1	1
l	10G and stacking cables					1	1
2.7	FIFTY (50) UNITS	50/units		+	+		+
2./	TRANSCEIVER:	Corunts				1	1
l	1000Base-SX SFP optic,					1	1
l	MMF, LC connector,						
l						1	1
l	Optical Monitoring					1	1
	Capable						
3	Supply of Network	1/lot					
	switches complete with					1	1
l	compatible accessories					1	
1	companible accessories			1		1	1



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A" – Revised Form 2	- Price Sch	<u>nedule</u>	 Pag
such as Small Form- factor Pluggable (SFP) modules, support and license, fans, power cords, centralized monitoring			
4 Supply, installation, termination, and testing with test results, of CAT6 cables or fiber optic cables as per project specifications.	1/lot		
Optical Time Domain Reflectometer for fiber optic cables and Fluke tester for copper cables.			
5 Install patch panels, racks and cabinets as required;	1/lot		
6 Network engineering configurations, activations and connectivity. Finalization of Network Structures, submission of as-built design in 20x30 digiblue print 4-sets signed and sealed documentations, test results, technical specification and manuals	1/lot		
7 Provision of Technical Training, Overview and knowledge transfer to ten(10) DAP Officer / Staff Provide one(1) year warranty support with monthly system and connectivity checkup and monitoring with 24/7 on- call and on-site support	1/lot		



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<b>7</b>	- Revised Form 2 - Price S	Schedule Page 2
	- Neviscu i omi z - i nce s	Schedule r age z
<b></b>		
55 (300)	Certificate of Warranty to	27.00 a 22.00 e 22.00 e 27.00
	DAP (End User) on all	
	supplied equipment and	
	cabling for one (1) year or	
	as per manufacturer's standard and post-	
	installation support for one	
	(1) year.	
-		
_		
		TOTAL AMOUNT:
		Yours sincerely,
		Todas sincerery,
	SIGNATURE OF THE AUTHORIZED REPRESENTATIVE	
	Name of the Authorized Representative	
	Position Title of Signatory:	
	Name of Firm\Bidder:	
	Postal Address:	
	TELEPHONE NUMBER:	
	EMAIL ADDRESS:	

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Annex "B" - Revised Form 9 - Technical Specifications Compliance ....... Page 1 of 7

# Bidder's LETTERHEAD

## FORM 9: TECHNICAL SPECIFICATIONS COMPLIANCE

- INSTRUCTIONS to BIDDERS:

  01. This form should be accompushed using the Bidder's letterhead, signed copy should be submitted as part of the Technical Component Marked as "TC05";

  02. The signed copy of this document (in PDF or JPEG Format) must be part of the electronic files that should be contained in the submitted electronic bid; and
- 03. THE FILENAME STRUCTURE SHOULD BE "TCO5\_XXX=CONFORMITY\_WITH\_TECH-SPECS=<BIODERNAME>".

## **CONFORMITY WITH THE TECHNICAL SPECIFICATIONS**

Item	Specification	Qty	Unit	Statement of Compliance
1	Audit the DAP existing network design and submit findings to the DAP ICTD  Submit the proposed network architecture, design and engineering plan, sign and sealed by Professional Electronics and Communication Engineer (PECE) in 20x30-4sets, A3-5sets and CAD file	1	lot	
2	Supply, installation, testing, configuration, and testing of twenty-three (23) network switches, one (1) core switch, one (1), distribution switch, twenty-one (21) access switches  Network Switches for DAP Pasig shall be inclusive of, but not limited to:	1	lot	
2.1	CORE SWITCH – COPPER: 24×10/100/1000Mbps GbE PoE/PoE+ ports, 2x1 GbE RJ45 uplink ports, 4×1GbE SFP uplink ports, switch's uplink ports are upgradeable into 2x10GbE SFP+ ports or 4x10GbE SFP+ ports via license, able to be managed or configured through CLI, GUI, WLAN controller or cloud, 1,020 Gbps of switching capacity and 759 Mpps forwarding capacity, allows the user to perform software upgrades to the switches in the stack without service interruption, able to stack up to twelve switches into a single logical switch, up to 2.4 Tbps of aggregated stacking bandwidth, capable of long distance stacking up to 10 km using standard optics or cables, does not need hardware module to have stacking feature and is capable of Hot insertion/removal of stack members, offer a "silent	1	unit	

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	mode" configuration option, enabling these switches to operate with the fan disabled for silent operation, sFlow-based network monitoring, Command Line Interface (CLI), Secure Shell (SSHv2), Secure Copy (SCP), and SNMPv3, Access Controller Access Control System (TACACS/TACACS+) and RADIUS authentication, LLDP and LLDP-MED protocol support, VLAN support and tagging support IEEE 802.1Q (4095 VLAN IDs), IPv4 and IPv6 static routes - RIP v1/v2, RIPng, ECMP, Port-based Access Control Lists, Layer 3/Layer 4 ACLs, Host routes, Virtual Interfaces, Routed Interfaces, Routeonly Support, Routing Between Directly Connected Subnets, advance L3 ready for advance L3 routing protocols, can be upgraded using L3 advance license, support for third-party transceivers, 1G,10G, 40G and 100G transceivers and stacking cables			
2.2	ONE (1) UNIT DISTRIBUTION SWITCH - FIBER: 24×1/10Gbps SPF/SFP+ ports, 40GbE QSFP+ uplink-ports, can add a modular slot 4×1/10 GbE SFP/SFP+ uplink-ports, 40GbE QSFP+ or 100GbE QSFP28 uplink ports, able to be managed or configured through CLI, GUI, WLAN controller or cloud, 1020 Gbps of switching capacity and 759 Mpps forwarding capacity, allows the user to perform software upgrades to the switches in the stack without service interruption, allows the user to perform software upgrades to the switches in the stack without service interruption, able to stack up to twelve switches into a single logical switch, up to 2.4 Tbps of aggregated stacking bandwidth, capable of long distance stacking up to 10 km using standard optics or cables, does not need hardware module to have stacking feature and is capable of Hot insertion/removal of stack members, offer a "silent mode" configuration option, enabling these switches to operate with the fan disabled for silent operation, sFlow-based network monitoring, Command Line Interface (CLI), Secure Shell (SSHv2), Secure Copy (SCP), and SNMPv3, Access Controller Access Control System (TACACS/TACACS+) and RADIUS authentication, LLDP and LLDP-MED protocol support, VLAN support and tagging support IEEE 802.1Q (4095 VLAN IDs), IPv4 and IPv6 static routes - RIP v1/v2, RIPng, ECMP, Port-based Access Control Lists, Layer 3/Layer 4 ACLs, Host routes, Virtual Interfaces, Routed Interfaces, Routeonly Support, Routing Between Directly Connected Subnets, advance L3 ready for advance L3 routing protocols, can be upgraded using L3 advance license, support for third-party transceivers, 1G,10G, 40G and 100G transceivers and stacking cables	1	unit	
2.3	TWELVE (12) UNITS POE FOR IDFs - ACCESS	12	units	

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SWITCH: 24×10/100/1000Mbps GbE PoE/PoE+			
ports, 2x1 GbE RJ45 uplink ports, 4×1GbE SFP			
uplink ports, switch's uplink ports are upgradeable			
into 2x10GbE SFP+ ports or 4x10GbE SFP+ ports			
via license, 132 Gbps of switching capacity and 98			
Mpps forwarding capacity, allows upgrades to the			
switches in the stack without service interruption,			
able to stack up to twelve switches into a single			
logical switch, up to 480 Gbps of aggregated stacking			
bandwidth, capable of long distance stacking up to 10			
km using standard optics or cables, does not need			
hardware module to have stacking feature and is			
capable of Hot insertion/removal of stack members,			
offer a "silent mode" configuration option, enabling			
these switches to operate with the fan disabled for			
silent operation, sFlow-based network monitoring,			
Command Line Interface (CLI), Secure Shell			
(SSHv2), Secure Copy (SCP), and SNMPv3, Access			
Controller Access Control System			
(TACACS/TACACS+) and RADIUS authentication,			
LLDP and LLDP-MED protocol support, VLAN			
support and tagging support IEEE 802.1Q (4095			
VLAN IDs), 802.1s Multiple Spanning Tree, 802.1x			
Authentication, Auto MDI/MDIX, BPDU Guard,			
Root Guard, Dual-Mode VLANs, MAC-based			
VLANs, Dynamic MAC-based VLAN activation,			
Dynamic VLAN Assignment, Fast Port Span, 802.1s			
Multiple Spanning Tree, IGMP Snooping (v1/v2/v3),			
IGMP Proxy for Static Groups, IGMP v2/v3 Fast			
Leave, Inter-Packet Gap (IPG) adjustment, Link			
Fault Signaling (LFS), MAC Address Filtering,			
MAC Learning Disable, Multi-device			
Authentication, Per-VLAN Spanning Tree (PVST/PVST+/PRST), Mirroring: Port-based, ACL-			
based, MAC Filter-based and VLAN-based, PIM-			
SM v2 Snooping, Port Loop Detection, Private			
VLAN, Remote Fault Notification (RFN), Single			
instance Spanning Tree, Trunk Groups (static,			
LACP), Uni-Directional Link Detection (UDLD),			
Metro-Ring Protocol (MRP) (v1, v2), Virtual Switch			
Redundancy Protocol (VSRP), Q-in-Q and selective			
Q-in-Q, VLAN Mapping, Topology Groups, IPv4			
and IPv6 static routes - RIP v1/v2, RIPng, ECMP,			
Port-based Access Control Lists, Layer 3/Layer 4			
ACLs, Host routes, Virtual Interfaces, Routed			
Interfaces, Route-only Support, Routing Between			
Directly Connected Subnets, support for third-party			
transceivers, 1G or 10G and stacking cables			
SEVEN (7) UNITS POE FOR IDF - ACCESS	7	units	
SWITCH: 48×10/100/1000Mbps GbE PoE/PoE+	,	unis	
ports, 2x1 GbE RJ45 uplink ports, 4×1GbE SFP			
uplink ports, switch's uplink ports are upgradeable			
into 2x10GbE SFP+ ports or 4x10GbE SFP+ ports			
via license, able to be managed or configured through			

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CLI, GUI, WLAN controller or cloud, 180 Gbps of switching capacity and 134 Mpps forwarding capacity, perform software upgrades to the switches in the stack without service interruption, able to stack up to twelve switches into a single logical switch, up to 480 Gbps of aggregated stacking bandwidth, capable of long distance stacking up to 10 km using standard optics or cables, does not need hardware module to have stacking feature and is capable of Hot insertion/removal of stack members, offer a "silent mode" configuration option, enabling these switches to operate with the fan disabled for silent operation, sFlow-based network monitoring, Command Line Interface (CLI), Secure Shell (SSHv2), Secure Copy (SCP), and SNMPv3, Access Controller Access Control System (TACACS/TACACS+) and RADIUS authentication, LLDP and LLDP-MED protocol support, VLAN support and tagging support IEEE 802.1Q (4095 VLAN IDs), 802.1s Multiple Spanning Tree, 802.1x Authentication, Auto MDI/MDIX, BPDU Guard, Root Guard, Dual-Mode VLANs, MAC-based VLANs, Dynamic MAC-based VLAN activation, Dynamic VLAN Assignment, Fast Port Span, 802.1s Multiple Spanning Tree, IGMP Snooping (v1/v2/v3), IGMP Proxy for Static Groups, IGMP v2/v3 Fast Leave, Inter-Packet Gap (IPG) adjustment, Link Fault Signaling (LFS), MAC Address Filtering, MAC Learning Disable, Multidevice Authentication, Per-VLAN Spanning Tree (PVST/PVST+/PRST), Mirroring: Port-based, ACL-based, MAC Filter-based and VLAN-based, PIM-SM v2 Snooping, Port Loop Detection, Private VLAN, Remote Fault Notification (RFN), Single instance Spanning Tree, Trunk Groups (static, LACP), Uni-Directional Link Detection (UDLD), Metro-Ring Protocol (WRP) (v1, v2), Virtual Switch Redundancy Protocol (VSRP), Q-in-Q and selective Q-in-Q, VLAN Mapping, Topology Groups, IPv4 and IPv6 static routes - RIP v1/v2, RIPng, ECMP, Port-based Access Control Lists, Layer 3/Layer 4 ACLs, Host routes, Virtual Interfaces, Routed Interfaces, Route-only Support, Routing Between Directly Connected Subnets, support for third-party	1	····it	
ONE (1) UNIT POE FOR MDF - ACCESS SWITCH: 24×10/100/1000Mbps GbE PoE/PoE+ports, 2x1 GbE RJ45 uplink ports, 4×1GbE SFP uplink ports, switch's uplink ports are upgradeable into 2x10GbE SFP+ ports or 4x10GbE SFP+ ports via license, 132 Gbps of switching capacity and 98 Mpps forwarding capacity, allows upgrades to the switches in the stack without service interruption, able to stack up to twelve switches into a single logical switch, up to 480 Gbps of aggregated stacking	1	unit	

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bandwidth, capable of long distance stacking up to 10 km using standard optics or cables, does not need hardware module to have stacking feature and is capable of Hot insertion/removal of stack members, offer a "silent mode" configuration option, enabling these switches to operate with the fan disabled for silent operation, sFlow-based network monitoring, Command Line Interface (CLI), Secure Shell (SSHv2), Secure Copy (SCP), and SNMPv3, Access Controller Access Control System (TACACS/TACACS+) and RADIUS authentication, LLDP and LLDP-MED protocol support, VLAN support and tagging support IEEE 802.1Q (4095 VLAN IDs), 802.1s Multiple Spanning Tree, 802.1x Authentication, Auto MDI/MDIX, BPDU Guard, Root Guard, Dual-Mode VLANs, MAC-based VLANs, Dynamic MAC-based VLAN activation, Dynamic VLAN Assignment, Fast Port Span, 802.1s Multiple Spanning Tree, IGMP Snooping (v1/v2/v3), IGMP Proxy for Static Groups, IGMP v2/v3 Fast Leave, Inter-Packet Gap (IPG) adjustment, Link
km using standard optics or cables, does not need hardware module to have stacking feature and is capable of Hot insertion/removal of stack members, offer a "silent mode" configuration option, enabling these switches to operate with the fan disabled for silent operation, sFlow-based network monitoring, Command Line Interface (CLI), Secure Shell (SSHv2), Secure Copy (SCP), and SNMPv3, Access Controller Access Control System (TACACS/TACACS+) and RADIUS authentication, LLDP and LLDP-MED protocol support, VLAN support and tagging support IEEE 802.1Q (4095 VLAN IDs), 802.1s Multiple Spanning Tree, 802.1x Authentication, Auto MDI/MDIX, BPDU Guard, Root Guard, Dual-Mode VLANs, MAC-based VLANs, Dynamic MAC-based VLAN activation, Dynamic VLAN Assignment, Fast Port Span, 802.1s Multiple Spanning Tree, IGMP Snooping (V1/v2/v3), IGMP Proxy for Static Groups, IGMP v2/v3 Fast
Fault Signaling (LFS), MAC Address Filtering, MAC Learning Disable, Multi-device Authentication, Per-VLAN Spanning Tree (PVST/PVST+/PRST), Mirroring: Port-based, ACL-based, MAC Filter-based and VLAN-based, PIM-SM v2 Snooping, Port Loop Detection, Private VLAN, Remote Fault Notification (RFN), Single instance Spanning Tree, Trunk Groups (static, LACP), Uni-Directional Link Detection (UDLD), Metro-Ring Protocol (MRP) (v1, v2), Virtual Switch Redundancy Protocol (VSRP), Q-in-Q and selective Q-in-Q, VLAN Mapping, Topology Groups, IPv4 and IPv6 static routes - RIP v1/v2, RIPng, ECMP, Port-based Access Control Lists, Layer 3/Layer 4 ACLs, Host routes, Virtual Interfaces, Routed Interfaces, Route-only Support, Routing Between Directly Connected Subnets, support for third-party

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	insertion/removal of stack members, offer a "silent mode" configuration option, enabling these switches to operate with the fan disabled for silent operation, sFlow-based network monitoring, Command Line Interface (CLI), Secure Shell (SSHv2), Secure Copy (SCP), and SNMPv3, Access Controller Access Control System (TACACS/TACACS+) and RADIUS authentication, LLDP and LLDP-MED protocol support, VLAN support and tagging support IEEE 802.1Q (4095 VLAN IDs), 802.1s Multiple Spanning Tree, 802.1x Authentication, Auto MDI/MDIX, BPDU Guard, Root Guard, Dual-Mode VLANs, MAC-based VLANs, Dynamic MAC-based VLAN activation, Dynamic VLAN Assignment, Fast Port Span, 802.1s Multiple Spanning Tree, IGMP Snooping (v1/v2/v3), IGMP Proxy for Static Groups, IGMP v2/v3 Fast Leave, Inter-Packet Gap (IPG) adjustment, Link Fault Signaling (LFS), MAC Address Filtering, MAC Learning Disable, Multidevice Authentication, Per-VLAN Spanning Tree (PVST/PVST+/PRST), Mirroring: Port-based, ACL-based, MAC Filter-based and VLAN-based, PIM-SM v2 Snooping, Port Loop Detection, Private VLAN, Remote Fault Notification (RFN), Single instance Spanning Tree, Trunk Groups (static, LACP), Uni-Directional Link Detection (UDLD), Metro-Ring Protocol (MRP) (v1, v2), Virtual Switch Redundancy Protocol (VSRP), Q-in-Q and selective Q-in-Q, VLAN Mapping, Topology Groups, IPv4 and IPv6 static routes - RIP v1/v2, RIPng, ECMP, Port-based Access Control Lists, Layer 3/Layer 4 ACLs, Host routes, Virtual Interfaces, Routed Interfaces, Route-only Support, Routing Between Directly Connected Subnets, support for third-party transceivers, 1G or 10G and stacking cables			
2.7	FIFTY (50) UNITS TRANSCEIVER: 1000Base-SX SFP optic, MMF, LC connector, Optical Monitoring Capable	50	units	
3	Supply of Network switches complete with compatible accessories such as Small Form-factor Pluggable (SFP) modules, support and license, fans, power cords, centralized monitoring	1	lot	
4	Supply, installation, termination, and testing with test results, of CAT6 cables or fiber optic cables as per project specifications.  Optical Time Domain Reflectometer for fiber	1	lot	
	optic cables and Fluke tester for copper cables.	v.		
5	Install patch panels, racks and cabinets as required;	1	lot	

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,			93	
6	Network engineering configurations, activations and connectivity. Finalization of Network Structures, submission of as-built design in 20x30 digiblue print 4-sets signed and sealed documentations, test results, technical specification and manuals	1	lot	
7	Provision of Technical Training, Overview and knowledge transfer to ten(10) DAP Officer / Staff	1	lot	
	Provide one(1) year warranty support with monthly system and connectivity checkup and monitoring with 24/7 on-call and on-site support, response time should be available within four (4) hours.			
	Certificate of Warranty to DAP (End User) on all supplied equipment and cabling for one (1) year or as per manufacturer's standard and postinstallation support for one (1) year.			
	Note: Bidder should have its own Technical Support Team, based in the Philippines to perform the technical support duties for the procuring entity covering all functions of the project.			

I hereby certify that the statement of compliance to the foregoing technical specifications are true and correct, otherwise, of found to be false either during bid evaluation or post-qualification, the same shall give rise to automatic disqualification of our bid.

SIGNATURE OF THE AUTHORIZED REPRESENTATIVE	
NAME OF THE AUTHORIZED REPRESENTATIVE	
Position Title of Signatory:	
Name of Firm\Bidder:	
POSTAL ADDRESS:	
TELEPHONE NUMBER:	
EMAIL ADDRESS:	
DATE SIGNED:	