



ASTI-FM 03-11
REV 1/13 January 2020

**DOST-ASTI Bids and Awards Committee
Invitation to Bid (Public Bidding)**

ITB No:	21-10-3602	Date:	October-21-2021
PR No:	GAA-21-10-12400	Date:	October-08-2021
Source of Funds:			
Total ABC:	Php 5,657,500.00		
Time, Date & Venue of Pre-bid Conference:	October 29, 2021, 10:00 AM at Via videoconferencing		
Time and Date of Submission of Bids:	November 10, 2021, 10:00 AM		
Time, Date & Venue of Opening Bids:	November 10, 2021, 10:30 AM at DOST-ASTI and Videoconferencing		
Date of availability of Complete Set of Documents:	October 21, 2021		
Deadline of Potential Bidder's Clarifications:	October 31, 2021		
Deadline of ASTI's Supplemental Bid Bulletin:	November 03, 2021		
Delivery Schedule:			

The Advanced Science and Technology Institute (ASTI), through its Bids and Awards Committee (BAC), hereby invites all interested bidders to submit their bids for the item(s) listed below. Guidelines regarding the format, eligibility, technical and financial documents needed are described in the Instruction to Bidders of the Philippine Bidding Documents

Bidding will be conducted through open competitive bidding procedures using a non discretionary "pass/fail" criterion as specified in the 2016 R-IRR of RA 9184.

A complete set of Bidding Documents may be purchased by interested bidders upon payment of a fee for the Bidding Documents. It is also downloadable for free of charge at DOST-ASTI's website - www.asti.dost.gov.ph

For further inquiries, contact ASTI's BAC Secretariat via email at bac-sec@asti.dost.gov.ph. Interested bidders may also call the number - (632)-426-7423 and look for ASTI's BAC Secretariat.

Respectfully,

GERWIN P. GUBA
BAC Chairman

NO.	TECHNICAL SPECIFICATIONS	QTY	UNIT	UNIT PRICE(Php)	TOTAL PRICE(Php)
1	<p>Transceivers</p> <p>1. General Statement / Background / Objectives</p> <p>1.1. The Advanced Science and Technology Institute (herein referred as to the "Institute") is seeking for qualified and competent bidders for the Supply and Delivery of networking equipment, specifically transceivers.</p> <p>1.1.1. Said Network Equipment will be used to upgrade the existing circuit capacity going to PREGINET services, Peering partners, Wide Area Network/Transit, and to the Internet Exchange.</p> <p>1.1.2. Said Network Equipment is an upgrade to the existing hardware equipment (Extreme X460-X24) and other networking equipment used in the Network Operation Center (NOC).</p> <p>1.1.3. Said network equipment is compatible with</p>	1	lot	2447500.00	2,447,500.00

the existing Cisco ASR 9901 and other brands of networking equipment used in the Network Operation Center (NOC)

1.2. The approved budget for the contract is inclusive of all applicable government taxes and services charges (eg. VAT, cancellation cost, duties, etc)

1.3. The specs written herein are of minimum requirements, unless otherwise stated.

1.4. Quantity: 25 units

2. Technical Specifications

2.1. Cisco Compatible: QSFP-100G-LR4-I

2.2. Form Factor: QSFP28

2.3. Wavelength: 1310nm

2.4. Max Cable Distance: 10km

2.5. Connector: LC Duplex

2.6. Transmitter Type: LAN WDM EML

2.7. DDM/DOM: Supported

2.8. TX Power: -4.3~4.5dBm

2.9. Powerbudget: 6.3dB

2.10. Power Consumption: ≤4W

2.11. Modulation Format: NRZ

2.12. Packaging Technology: BOX Packaging

2.13. EMC (Electro Magnetic Compatibility): Supported

2.14. Transmit and Dispersion Penalty: 2.2dB

2.15. Application: 100GBASE Ethernet, Telecom, 5G Wireless Network

2.16. Max Data Rate: 103.125Gbps (4x 25.78Gbps)

2.17. Cable Type: SMF

2.18. Receiver Type: PIN

2.19. Industrial Temperature Range: -40 to 85°C (-40 to 185°F)

2.20. Receiver Sensitivity: <-10.6dBm

2.21. Receiver Overload: 4.5dBm

2.22. Extinction Ratio: >4dB

2.23. CDR (Clock and Data Recovery): TX & RX Built-in CDR

2.24. Host FEC: Supported

2.25. Bit Error Ratio (BER): 1E-12 (without FEC)

2.26. Protocols: IEEE 802.3ba 100GBASE-LR4, IEEE 802.3bm, QSFP28 MSA Compliant

2.27. ≤4W low power consumption

2.28. Dual CDR (TX and RX)

2.29. Stainless steel material, anti-corrosion, and salt spray resistance

2.30. Fully compatible with almost all Cisco devices

2.31. Widely used on 100G switches, routers, servers, NICs and other transmission equipment

2.32. Suitable for telecom, service provider applications and 5G wireless network

2.33. IEC60825-1 Class 1 laser safety compliant

2.34. UL 94 V-0 Flammability Rating

2.35. Class B EMC, IEC 61000-4-2 Anti Electro-Static Discharge and IEC61000-4-3 Radiation Resistant

2.36. Compliant with IEEE 802.3ba 100GBASE-LR4 and IEEE 802.3bm CAUI-4 standard

2.37. Wavelength:

2.37.1. 1295.56nm

2.37.2. 1300.05nm

2.37.3. 1304.58nm

	<p>2.37.4. 1309.14nm</p> <p>2.38. Transmitter Type: LAN WDM EML</p> <p>2.39. TX Power: -4.3~4.5dBm</p> <p>2.40. Receiver Sensitivity: <-10.6dBm</p> <p>2.41. Receiver Overload: 4.5dBm</p> <p>2.42. Power Consumption: 4W</p> <p>2.43. Modulation Format: NRZ</p> <p>3. Technical Support Service</p> <p>3.1. Service Request</p> <p>3.3.1.1. End-user must be able to request technical support by phone or email or through a website</p> <p>3.3.1.2. Onsite technical support may be requested for special cases or critical severity issues</p> <p>3.2. Response Time:</p> <p>3.3.2.1. Feedback must be within four (4) business hours, and updates every 3 business days for critical severity issues that impact a high number of staff</p> <p>3.3.2.2. Feedback must be within eight (8) business hours, and updates every 5 business days for high severity issues that incurs serious degradation to application performance or functionality</p> <p>3.3.2.3. Feedback must be within twenty-four (24) business hours, and updates by request for medium severity issues that moderately impact user operations</p> <p>3.3.2.4. Feedback must be within forty-eight (48) business hours, and updates by request for low priority issues such as inquiries or issues with limited impact to user operations</p> <p>4. Other documentary requirements:</p> <p>4.1. Proof of ISO compliant / RoHS Compliant in ensuring manufacturer has established a comprehensive quality management system based on the most well-known methods and standards.</p> <p>5. Warranty Service</p> <p>5.1. Coverage: 1 year</p> <p>5.2. Shall also include on-site services, parts and labor</p> <p>5.3. The obligation for warranty shall be submitted upon delivery. It shall be covered by either retention money in an amount equivalent to at least five percent (5%) of every progress payment, or a special bank guarantee equivalent to at least five percent (5%) of the total contract price.</p> <p>6. Delivery Terms</p> <p>6.1. The goods or service must be delivered on or before December 29, 2021, upon issuance of Notice to Proceed (NTP).</p> <p>6.2. Other Delivery Terms: With three (3) days testing period to check for manufacturers defect before the acceptance.</p>				
2	<p>100G Switches</p> <p>1. General Statement / Background / Objectives</p> <p>1.1. The Advanced Science and Technology Institute (herein referred as to the "Institute") is seeking for qualified and competent bidders for the Supply and Delivery of networking equipment, specifically</p>	1	lot	3210000.00	3,210,000.00

switches.

1.1.1. Said Network Equipment will be used to upgrade the current 10Gbps interconnection of Government Network to a 100Gbps connection between the Point of Presence in the National Capital Region.

1.1.2. Said Network Equipment is an upgrade to the existing hardware equipment (Extreme X460-X24) and other networking equipment used in the Network Operation Center (NOC).

1.1.3. Said network equipment is compatible with the existing Cisco ASR 9901 and other brands of networking equipment used in the Network Operation Center (NOC)

1.2. The approved budget for the contract is inclusive of all applicable government taxes and services charges (eg. VAT, cancellation cost, duties, etc)

1.3. The specs written herein are of minimum requirements, unless otherwise stated.

1.4. Quantity: 6 units

2. Technical Specifications

2.1. Ports: 48x 10G SFP+, 2x 40G QSFP+, 4x 100G QSFP28

2.2. Switching Capacity: 1.92 Tbps

2.3. Forwarding Rate: 1071.4 Mpps

2.4. RAM: 1GB

2.5. Flash Memory: 2GB

2.6. Max./Min. Latency: 6.35us/6us

2.7. Packet Buffer: 9MB

2.8. Hot-swappable Power Supplies: 2 (1+1 Redundancy)

2.9. Hot-swappable Fans: 4 (3+1 Redundancy)

2.10. Airflow: Front-to-Back

2.11. Total Number Of IPv4/IPv6 Routes: 8K

2.12. MAC Address: 65K

2.13. ARP Table: 4096

2.14. Input Voltage: 100-240VAC, 50-60Hz

2.15. Typical/Max. Power Consumption: 160W/200W

2.16. Rack Space: 1U

2.17. Dimensions (HxWxD): 1.72"x17.32"x18.5" (43.6x440x470mm)

2.18. Operating Temperature: 32°F to 113°F (0°C to 45°C)

2.19. Storage Temperature: -40°F to 158°F (-40°C to 70°C)

2.20. VLAN, QoS, IGMP Snooping, Link Aggregation

2.21. Static Routing, RIP, OSPF, IPv6 support

2.22. VxLAN/MPLS/EVPN, Advanced Routing Protocol (BGP/ISIS)

2.23. Stacking or MLAG

2.24. 1+1 Hot-swappable Power Supplies

3. Technical Support Service

3.1. Service Request

3.1.1. End-user must be able to request technical support by phone or email or through a website

3.1.2. Onsite technical support may be requested for special cases or critical severity issues

3.2. Response Time:

3.3.2.1. Feedback must be within four (4) business

<p>hours, and updates every 3 business days for critical severity issues that impact a high number of staff</p> <p>3.3.2.2. Feedback must be within eight (8) business hours, and updates every 5 business days for high severity issues that incurs serious degradation to application performance or functionality</p> <p>3.3.2.3. Feedback must be within twenty-four (24) business hours, and updates by request for medium severity issues that moderately impact user operations</p> <p>3.3.2.4. Feedback must be within forty-eight (48) business hours, and updates by request for low priority issues such as inquiries or issues with limited impact to user operations</p> <p>4. Accessories</p> <p>4.1. 2x Power Cord (C13 to C14 power rated for 220V/30A)</p> <p>4.2. 2x Rack Mounting Brackets with bracket screws</p> <p>4.3. Console Cable</p> <p>4.4. Cat5e Cable</p> <p>4.5. Grounding Cable</p> <p>4.6. Manual</p> <p>5. Other documentary requirements:</p> <p>5.1. Proof of ISO compliant / RoHS Compliant in ensuring manufacturer has established a comprehensive quality management system based on the most well-known methods and standards.</p> <p>6. Warranty Service</p> <p>6.1. Coverage: 3 years</p> <p>6.2. Shall also include on-site services, parts and labor</p> <p>6.3. The obligation for warranty shall be submitted upon delivery. It shall be covered by either retention money in an amount equivalent to at least five percent (5%) of every progress payment, or a special bank guarantee equivalent to at least five percent (5%) of the total contract price.</p> <p>7. Delivery Terms</p> <p>7.1. The goods or service must be delivered on or before December 29, 2021, upon issuance of Notice to Proceed (NTP).</p> <p>7.2. Other Delivery Terms: With three (3) days testing period to check for manufacturers defect before the acceptance.</p>				
TOTAL APPROVED BUDGET FOR THE CONTRACT (ABC):				Php 5,657,500.00
RESERVATION CLAUSE				
The Advanced Science and Technology Institute reserves the right to accept or reject any proposal, to annul the bidding process, and to reject all proposals at any time prior to contract award, without thereby incurring any liability to the affected proponent or proponents.				