



ASTI-FM 03-11  
REV 0/2 APR 2018

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

ITB No:	19-09-2696	Date:	September-13-2019
PR No:	NetMeshR1-19-08-8383	Date:	August-27-2019
Source of Funds:			
Total ABC:	Php 4,000,000.00		
Time, Date & Venue of Pre-bid Conference:	September 26, 2019, 1:30 PM at DOST-ASTI		
Time and Date of Submission of Bids:	October 08, 2019, 12:00 PM		
Time, Date & Venue of Opening Bids:	October 08, 2019, 1:30 PM at DOST-ASTI		
Date of availability of Complete Set of Documents:	September 18, 2019		
Deadline of Potential Bidder's Clarifications:	September 28, 2019		
Deadline of ASTI's Supplemental Bid Bulletin:	October 01, 2019		
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](http://www.asti.dost.gov.ph)

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

Respectfully,

  
**PEDRITO B. MANGAHAS**  
Chairperson, BAC-1

NO.	TECHNICAL SPECIFICATIONS	QTY	UNIT	UNIT PRICE(Php)	TOTAL PRICE(Php)
1	<b>Network Equipment</b> Supply and delivery of the following:  Minimum hardware features 1. QSFP28 100G Ethernet 1310nm 10km Transceiver Module with FOC Patch Cable 1.1. Quantity: 24 pcs 1.1.1. 24 pcs, SFP Transceiver 1.1.2. 24 pcs, 5m (16ft) LC to LC Duplex Single Mode Fiber Optic Patch Cable 1.2. Must support CISCO: QSFP-100G-LR4-S 1.3. Form type: QSFP28 1.4. Wavelength: 1310nm 1.5. Connector: LC Duplex 1.6. Cable type: Single Mode Fiber (SMF) 1.7. TX Power: -6~4.5dBm 1.8. Protocols: 100G Ethernet, MSA Compliant 1.9. Max Data Rate: 103.1Gbps	1	lot	4000000.00	4,000,000.00

- 1.10. Max Cable Distance: 10km
- 1.11. Transmitter type: DML 1310nm
- 1.12. Receiver Sensitivity: <-10.6dBm

2. QSFP28 100G Ethernet 850nm 100m Transceiver Module and Patch Cables

2.1. Quantity:

2.1.1. 24 pcs, SFP Transceivers

2.1.2. 24 pcs, Multi-Mode, MTP/MFO Female, 5 Meters, Type A, OM3, Aqua

2.2 Must support CISCO: QSFP-100G-SR4-S

2.3 Form type: QSFP28

2.4 Wavelength: 850nm

2.5 Connector: MTP/MPO-12

2.6 Cable Type: Multi Mode Fiber (MMF)

2.7 TX Power: -8.4~2.4dBm

2.8 Protocols: 100G Ethernet, MSA Compliant

2.9 Max Data Rate: 103.1 Gbps

2.10 Max Cable Distance: 70m@OM3/100M@OM4

2.11 Transmitter type: VCSEL 850nm

2.12 DDM/DOM: Supported

2.13 Receiver Sensitivity: <-10.3dBm

3. QSFP+ 40G Ethernet 1310nm 10km Transceiver Module

3.1. Quantity:

3.1.1. 24 pcs, SFP Transceiver

3.1.2. 24 pcs, 10m (16ft) LC to LC Duplex Single Mode Fiber Optic Patch Cable

3.2. Must support CISCO: QSFP-40G-LR4-S

3.3. Form type: QSFP+

3.4. Wavelength: 1310nm

3.5. Connector: LC Duplex

3.6. Cable type: Single Mode Fiber (SMF)

3.7. CDR: Supported

3.8. TX Power: -7-2.3dBm

3.9. Max Data Rate: 40Gbps

3.10. Max Cable Distance: 10km

3.11. Transmitter type: DFB CWDM

3.12. Protocols: OTN OTU3, 40G Ethernet, InfiniBand, Fiber Channel, SATA/SAS3, MSA Compliant

3.13. Receiver Sensitivity: <-13.7dBm

4. QSFP+ 40G Ethernet 850nm 150m Transceiver Module

4.1. Quantity:

4.1.1. 24 pcs, SFP Transceiver Module

4.1.2. 24 pcs, Multi-Mode, MTP/MFO Female, 10 Meters, Type A, OM3, Aqua

4.2. Must Support for CISCO: QSFP-40G-SR-S

4.3. Form type: QSFP+

4.4. Wavelength: 850nm

4.5. Connector: MTP/MPO

4.6. Cable type: Multi Mode Fiber (MMF)

4.7. CDR: Supported

4.8. TX Power: -7.6~2.4dBm

4.9. Max Data Rate: 41.25Gbps

4.10. Max Cable Distance: 150m @OM4 MMF

4.11. Transmitter type: VCSEL 850nm

4.12. DDM/DOM Support: Yes

4.13. Protocols: 40G Ethernet, InfiniBand QDR,

SATA/SAS3, IEEE 802.3ba, MSA

5. Storage Server

5.1. Minimum hardware features

5.1.1. Hardware Summary:

5.1.2. Processor: Two (2) x Ten-Core Intel Xeon Processor E5-2640 v4 2.40GHz 25MB cache (90W) (or equivalent processor)

5.1.3. Motherboard: Intel C612 Chipset (or higher/equivalent) - 10x SATA - Dual Intel 1-Gigabit Ethernet (RJ45) - IPMI 2.0 with Dedicated LAN Port

5.1.4. Memory: Eight (8) x 8GB PC4 - 19200 2400MHz DDR4 ECC Registered DIMM

5.1.5. Chassis: 2U Chassis - 8x Hot-Swap 3.5" SATA/SAS3 - 740W Redundant Power

5.1.6. Hard Drive: Eight (8) x 6.0TB SAS 3.0 12Gb/s 7200RPM - 3.5"

5.1.7. Network Card: Intel 10GE Converged Network Adapter X520-SR2 (2x LC) with Two (2) x SFP+ (or equivalent specification network adapter)

5.1.8. Accessories: Quick-Release Rackmount Mounting Rails included

5.1.9. Warranty: 3 years advance parts and replacement warranty

5.1.10. Technical Specification:

5.1.11. Chassis:

5.1.11.1. 2U rackmount

5.1.11.2. External Drive Bays: 8x 3.5" hot-swap SAS/SATA drive bay

5.1.11.3. With 740W Redundant Power

5.1.12. Processor:

5.1.12.1. Supports Intel Xeon E5-2600 v4 or higher/equivalent

5.1.12.2. Clock speed: 2.40 GHz

5.1.12.3. System bus up to 8.0GT/s

5.1.12.4. With at least 25MB of Smart Cache

5.1.12.5. Core/Threads: 10 Cores / 20 Threads

5.1.12.6. Supports Intel Virtualization and Intel Hyper-Threading

5.1.13. Memory:

5.1.13.1. Technology: DDR4

5.1.13.2. Type: 288-pin DIMM

5.1.13.3. Capacity: 8 x 8GB

5.1.13.4. Speed: 2400MHz

5.1.13.5. ECC Registered

5.1.14. Hard Drive:

5.1.14.1. Storage Capacity:

5.1.14.1.1. 8 x 6.0 TB

5.1.14.1.2. 12Gb/s SAS, 7200RPM with 25MB Cache

5.1.14.2. Boot drive:

5.1.14.2.1. 128GB SATA 6.0Gb/s Disk on Module (MLC)

5.1.15. Controller Card:

5.1.15.1. Product Type: SAS RAID Controller

5.1.15.2. Data Transfer Rate: 12 Gb/s SAS

5.1.15.3. Internal Ports: 8 Ports

5.1.15.4. I/O Processor: LSI SAS3108 (ROC)

5.1.15.5. Cache Memory: 2GB DDR3

5.1.15.6. Supports Hardware RAID

5.1.15.7. Supports for RAID: 0,1,5,6,10,50,60

- 5.1.16. Network card:
- 5.1.16.1. 10Gbps Ethernet
- 5.1.16.1.1. With 10 Gigabit Ethernet Adapter ConnectX-3 EN (2 x SFP+)
- 5.1.16.1.2. Network Adapter: Intel 10-Gigabit Ethernet Converged Network Adapter X520-SR2 (2x LC)
- 5.1.16.2. Interface: PCI Express 3.0/2.0 x 8
- 5.1.16.3. Cable medium: Fiber
- 5.1.16.4. VMDc VT-c (Connectivity)
- 5.1.16.5. Includes VT-d (directed I/O)
- 5.1.17. Front Panel:
- 5.1.17.1. Buttons:
- 5.1.17.1.1. Power On/Off
- 5.1.17.1.2. System Reset
- 5.1.17.1.3. Universal Information (UID)
- 5.1.17.2. LEDs
- 5.1.17.2.1. Power Status
- 5.1.17.2.2. HDD Activity
- 5.1.17.2.3. Two (2) Network activity and Information UID

Notes:  
 Price inclusive of government fees, taxes and duties  
 With 1 year manufacturer's warranty  
 Delivery date: 30 Nov. 2019

<b>TOTAL APPROVED BUDGET FOR THE CONTRACT (ABC):</b>	<b>Php 4,000,000.00</b>
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**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.