



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

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

ITB No:	21-06-3453	Date:	June-23-2021
PR No:	INNOVATE-21-03-11049	Date:	June-10-2021
Source of Funds:			
Total ABC:	Php 27,357,838.40		
Time, Date & Venue of Pre-bid Conference:	July 01, 2021, 9:00 AM at Via videoconferencing		
Time and Date of Submission of Bids:	July 13, 2021, 10:00 AM		
Time, Date & Venue of Opening Bids:	July 13, 2021, 10:30 AM at DOST-ASTI and Videoconferencing		
Date of availability of Complete Set of Documents:	June 23, 2021		
Deadline of Potential Bidder's Clarifications:	July 03, 2021		
Deadline of ASTI's Supplemental Bid Bulletin:	July 06, 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,

REYNALDO JOSEPH A. CALLAO JR.
BAC Chairman

NO.	TECHNICAL SPECIFICATIONS	QTY	UNIT	UNIT PRICE(Php)	TOTAL PRICE(Php)
1	<p>Storage and Compute Servers</p> <p>I. Installation and Delivery of Storage and Compute servers and peripherals</p> <p>The specifications written herein are of minimum requirements, unless otherwise stated.</p> <p>A. GPU Server</p> <p>1. Number of Units: One (1)</p> <p>2. Specifications</p> <p>a. Processor:</p> <p>1. Count: 2</p> <p>2. Cores: 8</p> <p>3. Threads: 16</p> <p>4. Base Clock: 3.1GHz</p> <p>5. Boost Clock: 3.2GHz</p> <p>6. L3 Cache: 64MB</p>	1	lot	27357838.40	27,357,838.40

- b. Memory: 12x 32GB PC4-23400 2933MHz DDR4 ECC RDIMM
- c. Boot Drive: 2x 2.5" 960Gb SATA SSD
 - 1. Endurance rating (Lifetime Writes): 9.9 PBW
 - 2. Mean time between failures (MTBF): 2 million hours
 - 3. Uncorrectable Bit Error Rate (UBER): 1 sector per 10¹⁷ bits read
- d. GPU Accelerator: 8x NVIDIA® Tesla™ A100 SXM4 GPU Computing with NVlink and NVswitch Support
- e. Server Management:
 - 1. Controller: Aspeed® AST2500 management controller
 - 2. Features:
 - 2.1. Redfish support
 - 2.2. Web based Dashboard
 - 2.3. JAVA Based Serial Over LAN
 - 2.4. HTML5 KVM
 - 2.5. Sensor Monitor
 - 2.6. Sensor Reading History Data
 - 2.7. FRU Information
 - 2.8. Hardware Inventory
 - 2.9. Fan Profile
 - 2.10. System Firewall
 - 2.11. Power Consumption
 - 2.12. Power Control
 - 2.13. LDAP / AD / RADIUS Support
 - 2.14. Backup & Restore Configuration
 - 2.15. Remote BIOS/BMC/CPLD Update
 - 2.16. Event Log Filter
 - 2.17. User Management
 - 2.18. Media Redirection Settings
 - 2.19. PAM Order Settings
 - 2.20. SSL Settings
 - 2.21. SMTP Settings
- f. OS: No OS
- g. Network:
 - 1. 2x RJ45 Gigabit Ethernet
 - 2. 1x RJ45 Dedicated management interface
- h. Network Adapter
 - 1. Transmission speed: 10Gbps Ethernet
 - 2. Form Factor: Low-profile
 - 3. Ports: 2x SFP+
 - 4. Supported Expansion Slot: up to PCI-E 4.0 x8
 - 5. Cables Support: LC-LC MM fiber-optic cables
 - 6. Features: Support for 802.3ad and 802.1q
- i. Chassis
 - 1. Form factor: 4U Rackmount
 - 2. Power supply: 4x 3000W 80 PLUS Platinum redundant power supply
 - 3. Expansion slots: 8 x SXM4 sockets for NVIDIA A100 8-GPU
 - 3.1 Two (2) low profile PCI-E x16 for the 10G network card
- j. OS Compatibility: RHEL 7.4 or later, Ubuntu 16.04 or later, and CentOS 7 or later
- k. Accessories
 - 1. Tool-less railing kit
 - 2. 4x c19-c14 (0.5 meter) power cables or compatible with c13 PDU
 - 3. Four (4) Units LC SFP+ MMF Transceiver module (Must be compatible with extreme x670 and network

adapter with the system)

4. Two (2) Units LC-LC MM Fiber cable

B. Storage Server

1. Number of Units: One (1)

2. Specifications

a. Processor:

1. Count: 1

2. Cores: 8

3. Threads: 16

4. Base Clock: 3.1GHz

5. Boost Clock: 3.2GHz

6. L3 Cache: 64MB

b. Memory: 12x 32GB PC4-23400 2933MHz DDR4 ECC RDIMM

c. Boot Drive: 2x 240Gb 2.5" SATA SSD

d. Hard Drive: 36x 3.5" 16TB SAS 3.0 12.0Gb/s 7200RPM

e. Controller Card:

1. IO Controller: SAS 3008 12Gbps

2. Port Count: 8 port, internal

3. Connector: 2x Mini SAS HD (SFF8643)

4. Features: IT mode firmware

f. Network

1. 2x SFP+ 10Gbps LAN ports

1.1 Support for LC-LC MM fiber-optic cables

1.2 Support for 802.3ad and 802.1q

2. 1x RJ45 Dedicated management interface

g. Server Management:

1. Controller: Aspeed® AST2500 management controller

2. Features:

2.1. Redfish support

2.2. Web based Dashboard

2.3. JAVA Based Serial Over LAN

2.4. HTML5 KVM

2.5. Sensor Monitor

2.6. Sensor Reading History Data

2.7. FRU Information

2.8. Hardware Inventory

2.9. Fan Profile

2.10. System Firewall

2.11. Power Consumption

2.12. Power Control

2.13. LDAP / AD / RADIUS Support

2.14. Backup & Restore Configuration

2.15. Remote BIOS/BMC/CPLD Update

2.16. Event Log Filter

2.17. User Management

2.18. Media Redirection Settings

2.19. PAM Order Settings

2.20. SSL Settings

2.21. SMTP Settings

h. OS: No OS

i. Chassis

1. Form factor: 4U Rackmount

2. Power supply: 2x 1200W 80 PLUS Platinum redundant power supply

3. Drive bays:

3.1 Front: 24x 3.5" or 2.5" SATA/SAS hot-swappable HDD/SSD bays

3.2 Rear: 12x 3.5" or 2.5" SATA/SAS hot-swappable HDD/SSD bays and 2x 2.5" hot-swappable SSD bays
j. OS Compatibility: RHEL 7.4 or later, Ubuntu 16.04 or later, and CentOS 7 or later

k. Accessories

1. Tool-less raiiling kit
2. 2x c13-c14 (0.5 meter) power cables or compatible with c13 PDU
3. Four (4) Units LC SFP+ MMF Transceiver module (Must be compatible with extreme x670 and SFP+ port with the system)
4. Two (2) Units LC-LC MM Fiber cable

C. Uninterruptible Power Supply (UPS)

1. Number of Units: 1

2. Specifications

a. Capacity: 20KVA/18KW

b. Nominal voltage: 380/400/415VAC 3-Phase, 4 Wire

c. Input voltage range: 3-phase, 228VAC to 478VAC

d. Input Frequency range: 45Hz to 70Hz

e. Nominal Output voltage: 220/230/240VAC (1-Phase), 380/400/415VAC (3-Phase)

f. Nominal Oputput Frequency: 50/60 Hz

g. Form factor: 3U Rackmountable

3. Output Parameters

a. Rated Power: 20kVA / 18kW

b. Rated Voltage: 3-phase in / out and 3-phase in / Single-phase out

c. Overload Capacity performance: 105 to125% for 5min, 125 to150% for 1min, > 150% for 200ms

4. System parameters and standard

a. Conversion type: On-line double conversion

b. parallel operation: up to 3+1 parallel operation

c. Transfer Time (power failure): No transfer time, on-line operation

d. Standards/Conformity: IEC/EN62040-1-1

e. EMC: IEC / EN 62040-2, IEC / EN61000-3-11,IEC / EN61000-3-12, YD / T1095-2008

f. Surge Protection: IEC / EN 61000-4-5

g. Protection Level: IP20

5. Management:

a. 10/100 Mbit Ethernet, IPv4 and IPv6, and HTTP/HTTPS for device webpage access

b. SNMP (v1/v2c and v3)

5. Accesories:

a. rack railing kits

b. 4x 1m parallel cable kits (DB9 connector)

6. Compatibility:

a. Can deliver 3+1 performance with Liebert® ITA 20KVA UHA3R-0200L via parallel cable kit

6. Inclusions:

a. Delivery and installation wiring works and other necessities related to installation.

b. The end user will provide the location of the UPS in the rack

D. UPS External battery module

1. Number of Units: 8

2. Battery Type: Sealed, non-spillage, maintenance-free battery

3. Built in with 16-cell 12V (7.2Ah) batteries

4. Form factor: 2U Rackmountable

5. DC Input: 216V 2A
6. DC Output: 192V 36A max
7. Charging Capability: 4.5KW, max charging power
8. Compatible with Liebert® ITA 20KVA UHA3R-0200L
9. Accesories
 - a. rack railing kits
 - b. 16x 0.5m to 2m External battery cables
10. Inclusions:
 - a. Delivery and installation including wiring works and other necessities related to installation.
 - b. The end user will provide the location of the external batteries in the rack

D. Raid Controller

1. Number of units: Thirty (30)
2. Specifications
 - a. IO Controller: SAS 2208
 - b. SAS SATA Raid Controller
 - c. Product Type: SAS Controller
 - d. Host Interface: PCI EXPRESS 3.0 X8
 - e. Data Transfer Rate: Up to 768 MBPS Per Port
Interfaces: Serial Attached SCSI (SAS), SERIAL ATA/600
 - f. Raid Supported
 - g. Raid Levels: 0, 1, 5, 6, 10, 50, 60
 - h. Standard Memory: 1 GB DDR3 SDRAM
 - i. Ports: 2 X SFF-8087 6GB/S SAS - MINI-SAS
INTERNAL HEIGHT: 2.5
 - j. Width: 6.6
 - k. Form Factor: Low-profile plug-in
 - l. Cache protection: Includes CacheVault flash cache protection
 - m. Advanced software features:
 1. CacheCade Pro 2.0 Software or equivalent license

E. 16Tb SAS Drive

1. Number of Units: Four Hundred Thirty-Two (432)
2. Specifications:
 - a. Interface: SAS 12Gb/s Capacity: 16 TB
 - b. RPM: 7200 RPM
 - c. Cache: 256MB
 - d. Average Latency: 4.16ms Form Factor: 3.5"
 - e. Height (maximum): 26.11 mm
 - f. Width (maximum): 101.85 mm
 - g. Length (maximum): 147 mm

II. Terms and Delivery

- A. Items must be delivered within ninety (90) calendar days after issuance of NTP.
- B. Price must be inclusive of government charges, VAT, delivery fees, and miscellaneous fees.
- C. Warranty
 1. The server platform must be shipped with 30-calendar day return for advanced replacement on DOA parts and components, and 3-year limited warranty that covers defects in materials and workmanship.
- D. Service Request
 1. End-user must be able to request technical support

<p>by phone, email or through a website</p> <p>2. Onsite technical support may be requested for special cases or critical severity issues</p> <p>E. Response Time</p> <p>1. Four (4) business hours, and updates every 3 business days for critical severity issues that impact a high number of staff</p> <p>2. 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. Twenty-Four (24) business hours, and updates by request for medium severity issues that moderately impact user operations</p> <p>4. 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>				
--	--	--	--	--

TOTAL APPROVED BUDGET FOR THE CONTRACT (ABC):	Php 27,357,838.40
--	--------------------------

RESERVATION CLAUSE

<p>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.</p>
