



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

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

|   |   |              |                  |
|---|---|--------------|------------------|
| <b>ITB No:</b>  | 22-02-3757  | <b>Date:</b> | February-18-2022 |
| <b>PR No:</b>   | ALAM-22-01-13095  | <b>Date:</b> | January-17-2022  |
| <b>Source of Funds:</b>                                   |   |              |                  |
| <b>Total ABC:</b>   | Php 6,100,000.00  |              |                  |
| <b>Time, Date &amp; Venue of Pre-bid Conference:</b>      | March 03, 2022, 10:00 AM at Via videoconferencing           |              |                  |
| <b>Time and Date of Submission of Bids:</b>               | March 15, 2022, 09:00 AM                                    |              |                  |
| <b>Time, Date &amp; Venue of Opening Bids:</b>            | March 15, 2022, 10:00 AM at DOST-ASTI and Videoconferencing |              |                  |
| <b>Date of availability of Complete Set of Documents:</b> | February 23, 2022   |              |                  |
| <b>Deadline of Potential Bidder's Clarifications:</b>     | March 05, 2022  |              |                  |
| <b>Deadline of ASTI's Supplemental Bid Bulletin:</b>      | March 08, 2022  |              |                  |
| <b>Delivery Schedule:</b>                                 |   |              |                  |

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,

**BAYANI BENJAMIN R. LARA**  
BAC Chairman

| NO. | TECHNICAL SPECIFICATIONS   | QTY | UNIT | UNIT PRICE(Php) | TOTAL PRICE(Php) |
|-----|--|-----|------|-----------------|------------------|
| 1   | <p><b>One (1) Lot Network Equipment and Accessories</b></p> <p>1. GENERAL STATEMENTS / BACKGROUND / OBJECTIVES</p> <p>1.1 The Advanced Science and Technology Institute (herein referred to as to the "Institute") is seeking qualified and competent bidders for the Supply and Delivery of networking equipment.</p> <p>1.1.1 Said Network Equipment will be used for the implementation of the local transport as part of the deliverables of ALAM project.</p> <p>1.2 The approved budget for the contract is inclusive of all applicable government taxes and services charges (eg. VAT, cancellation cost, duties, etc)</p> <p>1.3 The specs written herein are of minimum requirements unless otherwise stated.</p> <p>1.4 Quantity: One (1) Lot of Network Equipment</p> | 1   | lot  | 6100000.00      | 6,100,000.00     |

## 2. TECHNICAL SPECIFICATIONS:

### 2.1. Hardware Specifications:

- 2.1.1. With Eight (8) 1/10GbE SFP-based ports
- 2.1.2. With Two (2) 10GbE dedicated high availability (HA) ports
- 2.1.3. With One (1) 1GbE dedicated Out-of-Band (OOB) management port
- 2.1.4. With One (1) console port
- 2.1.5. With One (1) USB port
- 2.1.6. With 64GB RAM system memory
- 2.1.7. With 240GB 1+1 RAID storage
- 2.1.8. With Two (2) AC power supply unit with C13 power cables rated for 220V
- 2.1.9. Form factor : 1 RU
- 2.1.10. Environmental:
  - 2.1.10.1. Airflow/cooling : Front to back
  - 2.1.10.2. Operating temperature : 32° to 104° F (0° to 40° C)
  - 2.1.10.3. Operating humidity : 5% to 90% noncondensing
  - 2.1.10.4. Meantime between failures (MTBF) : 221,729 hours (about 25.3 years)

### 2.2. Performance and Capacity:

- 2.2.1. System Throughput : 80Gbps (1518 B packet size)
- 2.2.2. Route table size (RIB/FIB) (IPv4 or IPv6) : 2 million/1.2 million

### 2.3. Layer 3 Features:

- 2.3.1. Must support the following routing protocols :
  - 2.3.1.1. IPv4, IPv6, static routes, RIP v1/v2
  - 2.3.1.2. OSPF & OSPFv3
  - 2.3.1.3. BGP with route reflection
  - 2.3.1.4. IS-IS
  - 2.3.1.5. Virtual router
  - 2.3.1.6. Policy-based routing, source-based routing
  - 2.3.1.7. Equal-cost multipath (ECMP)

### 2.4. MPLS:

- 2.4.1. Must support the following advanced routing features:
  - 2.4.1.1. MPLS LDP
  - 2.4.1.2. MPLS RSVP
  - 2.4.1.3. MPLS traffic engineering
  - 2.4.1.4. Circuit cross-connect (CCC)
  - 2.4.1.5. MPLS L2VPN
  - 2.4.1.6. MPLS L3VPN
  - 2.4.1.7. Virtual Private LAN Service (VPLS)
  - 2.4.1.8. Multicast VPN (MPVN)

### 2.5. Network Address Translation (NAT):

- 2.5.1. Must support the following NAT Features:
  - 2.5.1.1. Bidirectional 1:1 static NAT
  - 2.5.1.2. Source NAT with Port Address Translation (PAT)
  - 2.5.1.3. Destination NAT with PAT
  - 2.5.1.4. Persistent NAT
  - 2.5.1.5. IPv6 address translation
  - 2.5.1.6. Port Block Allocation method

#### 2.5.1.7. Deterministic NAT

#### 2.6. High Availability Features:

##### 2.6.1. Must support the following HA features:

- 2.6.1.1. Virtual Router Redundancy Protocol (VRRP) – IPv4 and IPv6
- 2.6.1.2. In-Service Software Upgrade (ISSU)
- 2.6.1.3. Device/link detection

#### 2.7. Security:

##### 2.7.1. Must support the following security features:

- 2.7.1.1. Firewall filters/ACLs
- 2.7.1.2. Stateful and stateless firewall
- 2.7.1.3. Zone-based firewall
- 2.7.1.4. Screens and distributed denial of service (DDoS) protection
- 2.7.1.5. Protection from protocol and traffic anomalies
- 2.7.1.6. Unified Access Control (UAC)

#### 2.8. Management and Automation:

##### 2.8.1. Must support the following management and automation features:

- 2.8.1.1. SSH, Telnet, SNMP
- 2.8.1.2. CLI
- 2.8.1.3. Web UI
- 2.8.1.4. NETCONF/YANG/OpenConfig
- 2.8.1.5. JSON/XML
- 2.8.1.6. Scripts (Op scripts, commit scripts, event scripts)

##### 2.8.1.7. Rich on-box scripting support using Python

##### 2.8.1.8. REST APIs

2.8.1.9. The device must be able to support comparison of current edited configuration with running configuration and display the differences, if any.

2.8.1.10. The device must be able to support configuration rollback without system reboot (must be able to save the last 50 committed configurations, including the rollback number, date, time, and name of the user who issued the commit configuration command).

2.8.1.11. By entering a configuration command into the device, the particular feature must not be activated immediately.

2.8.1.12. Full configuration validation without immediately activating edited configuration.

2.8.1.13. The device must support temporarily activate edited configuration and automatically perform configuration rollback after a specified period of time.

2.8.1.14. OS configuration rescue and rollback, image rollback.

2.8.1.15. Wildcard-based configuration groups and inheritance model.

2.8.1.16. The control and forwarding planes must be separated.

#### 3. ACCESSORIES:

##### 3.1. Mounting kit

3.2. Two (2) C13 power cables rated for 220V

3.3. SFP : One (1) 1000Base-SX Gigabit Ethernet Optic Module, Duplex LC connector

- 3.4. SFP : One (1) 1000Base-LX Gigabit Ethernet Optic Module, Duplex LC connector
- 3.5. SFP+ : One (1) 10GBASE-SR, MMF OM3 300 meters and OM4 400 meters, Standard Temperature (0 through 70 DEGREE C), Duplex LC connector.
- 3.6. SFP+ : One (1) 10BASE-LR Type 2, SMF 10 Km, Standard Temperature (0 through 70 DEGREE C), Duplex LC connector.

#### 4. AFTERSALES/TECHNICAL SUPPORT SERVICES

##### 4.1 Service Request

- 4.1.1 End-user must be able to request technical support by phone or email or through a website
- 4.1.2 Onsite technical support may be requested for special cases or critical severity issues

##### 4.2 Response Times

- 4.2.1 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
- 4.2.2 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
- 4.2.3 Feedback must be within twenty-four (24) business hours, and updates by request for medium severity issues that moderately impact user operations
- 4.2.4 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

#### 5. OTHER DOCUMENTARY REQUIREMENTS

- 5.1. The manufacturer of the equipment must possess ISO certification (or any equivalent certification) that guarantees that their production process is governed by quality measurement practices. The bidder must submit documentary proof of ISO certification of the offered brands issued by accredited registrars or any equivalent certification body.
- 5.2. The prospective bidder must supply a hardcopy certification signed by the original equipment manufacturer or its authorized Philippine distributor, authorizing the aforementioned to promote, distribute, sell, and provide post-sales technical support for the equipment.

#### 6. WARRANTY SERVICE (REQUIRED)

- 6.1 Coverage : With Three (3) years support warranty
  - 6.1.1. With Firmware upgrade support within the warranty period
  - 6.1.2. With Security patches support within the warranty period
- 6.2. Shall also include on-site services, parts and labor
- 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.

#### 7. PAYMENT AND DELIVERY TERMS

7.1 The goods or service must be delivered sixty (60) days upon issuance of Notice to Proceed (NTP).

7.2 Payment shall be made only upon certification/acceptance by the End-user to the effect that the Goods have been delivered in accordance with the terms of this contract and have been duly inspected and accepted. No payment shall be made for services not yet rendered or for goods, , supplies, and materials not yet delivered under this contract.

7.3 With Seven (7) days testing period to check for manufacturers defect before the acceptance.

**TOTAL APPROVED BUDGET FOR THE CONTRACT (ABC):**

**Php 6,100,000.00**

**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.