



Republic of the Philippines  
 Department of Science and Technology  
**ADVANCED SCIENCE AND TECHNOLOGY INSTITUTE**



ASTI - FM 03-17  
 REV 0 / 02 April 2018

**PURCHASE ORDER**

Supplier:	Accent Micro Technologies, Inc.	PO No.:	DATOS-18-12-0013
Address:	8/F Philippine Stock Exchange Center, East Tower, Exchange Road, Ortigas Center, Pasig City	PO Date:	December 03, 2018
TIN:	004-968-201-000	Mode of Procurement:	Competitive Bidding: Goods and Services

Gentleman:

Please furnish this Office the following articles subject to the terms and conditions contained herein:

Place of Delivery:	ASTI Bldg., C.P. Garcia Ave., U.P. Technology Park Complex, U.P. Campus, Diliman, Quezon City 1101	Delivery Term:	Per end-user's schedule
Date of Delivery:		Payment Term:	Government Terms
		Warranty Term:	

Stock / Property No.	Unit	Description	Quantity	Unit Cost	Amount
1	lot	Storage Server	1	₱18,429,991.82	₱18,429,991.82
		Scope: Supply, Delivery, Installation and Configuration  BLADE SERVER ( 10 Units) 1) At least 2 x 2.4GHz, 14-core Intel processor, 35M L3 cache 2) At least 128 GB total DDR4 RDIMM memory, 2400MT/s in 24 DIMMS slots 3) 2 x 2.5" 600GB 10k RPM SAS, 128MB or above 4) Must support RAID 0, 1 5) 4x 10GE ports 6) Must provide at least one PCIe slot 7) Supports integrated system management: • Automatically restarts servers • Monitors and controls fan modules, power supplies and temperature • Starts and shuts down servers • Restarts servers in sequence • Updates local firmware • Records error logs 8) Provides GUIs for management and other advanced management functions. 9) Provides independent remote management and control ports and GUIs for remote monitoring to implement remote full control over servers independent of OSs. Remote full control includes remote startup, shutdown, and reset, and virtual floppy and DVD-ROM drives. 10) Warranty Period: 3 years, 24x7x4H (4 hours response time)  ===== SERVER CHASSIS (1 unit) 1) At least support 16 units blade/node in single chassis 2) At least support 4 units switch module 3) At least provide redundant 10GE switch modules, and each switch module provides at least 16 x 10GE uplink ports with 8 unit transceivers 4) Provides a built-in touch LCD and LCD function description document for users to configure and maintain basic parameters (Optional) 5) Provides redundant hot-swappable management modules. Users can access, manage, and diagnose faults for hardware devices in the blade server architecture locally or remotely using the virtual media and remote KVM. 6) Provides hot-swappable, AC PSUs, with N+N redundancy			

7) Provides at least 10 units redundant hot-swappable fan modules

8) Warranty Period: 3 years, 24x7x4H (4 hours response time)

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VIRTUALIZATION PLATFORM (1 unit)

1) Provides necessary license for blades server in this project

2) Provides at least 3 years subscription and support

3) Support VM high availability (HA), independent of management modules. If a VM breaks down due to a server hardware fault or runs improperly due to its OS fault, the virtualization platform must be capable of automatically starting the VM on another properly running server to restore the VM services

4) Support the capabilities of creating a VM using an open virtualization format (OVF) template and exporting a VM as an OVF template.

5) Support secure VM volume deletion that allows users to thoroughly delete all bits of a VM volume, thereby preventing a deleted VM volume from being restored for malicious purposes.

6) Support the network interface card (NIC) passthrough function, which enables a NIC to be associated with a specified VM or enables a VM to exclusively use a NIC to meet high bandwidth requirements.

7) Supporting VM operations with the following requirements:

- Power on/off/recycle;
- Reboot/shutdown;
- Non-disruptive migration to other nodes in cluster
- Remote console;

8)Warranty Period: 3 years, 24x7x4H (4 hours response time)

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UNIFIED STORAGE (1 unit)

1) Provide SAN + NAS unified storage.

2) Provide active-active storage controller integrating SAN and NAS protocol without additional gateway

3) Provide at least 128G cache

4) Provide 8 x 10G ports for each controller

5) Supports 8G Fibre Channel, 1G iSCSI, 10G iSCSI, 10G FCoE ports, 16G Fibre Channel ports, 56G InfiniBand

6) Provide 12 Gbit/s SAS 3.0 back-end disk channel.

7) Provide at least 12 x 900G SSD SAS disk.

8) Provide at least 120 x 6TB NL-SAS disk.

9) Should support RAID 0, 1, 3 (optional), 5, 6, 10, and 50.

10) The maximum number of supported disk slots should be at least 730.

11) Provide thin provisioning to allocate resource on demand, realize zero detection, and reclaim space that has been deleted to improve space utilization.

12) Provide automatic storage Tier feature for different type of disk.

13) Provide Snapshots feature

14) Provide Clone feature

15) Provide Copy feature

16) Redundant power modules, fan modules, controllers, and caches under the power failure protection

17) Hot swappable disks, power modules, and I/O modules

18) Must provide graphical management software with comprehensive functions. Storage array and volume management software should be included.

19) Warranty Period: 3 years, 24x7x4H (4 hours response time)

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TOR DATA CENTER SWITCH (2 units)

1) Hardware Architecture

- The equipment must support switching capacity of 640Gbps.

- The equipment must support 28-port 10GE SFP+ and 2-port 40GE QSFP+ ;

- The equipment must support a buffer size of larger than or equal to 9MB

- The equipment must support front-to-rear ventilation channel.

2) Layer 2 features

- The equipment must support Max 64K MAC address

Tables.

- Indicate if the "VLAN Mapping" feature is supported.
- The equipment must support the IEEE 802.1ad (Q-in-Q) standard
- The equipment must support MUX VLAN or equivalent
- The equipment must support STP/RSTP/MSTP. It must support 64 MSTP instances.
- The equipment must support ERPS.

3) Quality of Service

- The equipment must support Quality-of-Service (QoS).
- The equipment must support egress traffic shaping.
- Any port must support at least 8 output queues.
- The equipment must support congestion management.
- The equipment must support flexible flow classification (802.1p, DSCP etc).

4) Security

- The equipment must support the DAI (Dynamic ARP Inspection) feature
- The equipment must support DHCP Snooping feature
- The equipment must support the IP Source Guard feature
- The equipment must implement control plane protection.
- The equipment must support AAA including RADIUS and TACACS+.

5) Availability

- The equipment must support power supply redundancy.
- The equipment must support Multi-chassis LAG for redundancy.
- The equipment must support fan redundancy.

6) Operation and Maintenance

- The equipment must support SNMP v1, v2c and v3. The supplier must detail all supported MIBs.
- The equipment must support SYSLOG.
- The supplier must support management via CLI and NETCONF.
- The equipment must be able to synchronize its clock via NTP.

7) Data Center Features

- The equipment must support 16 physical switches clustered as one logical switch for simple management.
- The equipment must support PFC/ETS/DCBX
- The equipment must support FIP Snooping Bridge

8) Warranty Period: 3 years, 24x7x4H (4 hours response time)

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CONVERGED CABINET WITH PDU and UPS (1 unit)

- 1) Converged Cabinet should be 42U Standard Rack Enclosure
- 2) Static load should be 1500 kg
- 3) Dynamic load should be 1000 kg
- 4) Front door should be single-swing door and Rear door should be double-swing door
- 5) Standard width should be 19 inches
- 6) Protection level should be IP20
- 7) Supports both top and bottom cable routing.
- 8) UPS capacity should be 6KVA
- 9) UPS output power factor should be 0.9
- 10) UPS efficiency should be 94.5%
- 11) Battery power backup time should be at least 15mins
- 12) Provide smoke sensor, temperature and humidity module, water detector
- 13) Warranty Period: 3 years, 9x5xNBD

Others

- 1) Specifications listed for each item above are implicitly implied to be minimum specifications. Bidders are encouraged to propose better specifications in their bids so long as it does not deviate too much from the intent of the original specification.
- 2) Vendor shall shoulder all costs and expenses related to the implementation phase of the project. These will include, but not limited to, taxes, fees, purchase of additional cables / connectors / accessories for the units to be deployed if there are any, data center improvements to accommodate the deployment if there are any, transportation / shipping, consultants' fees, etc.
- 3) The winning bidder is required to conduct a requirements analysis for the configuration of the whole

Setup within 15 calendar days after receipt of Notice to Proceed. The bidder must submit complete documentation of the entire work plan, resource (hw/sw) requirements, manpower requirements, network design, course syllabus (for knowledge transfer) etc.

4) The winning bidder is required to deliver, install and configure the items to an ASTI-designated data center within 15 calendar days after receipt of Notice to Proceed.

5) The winning bidder is required to conduct knowledge transfer for all of the items delivered for at most 10 people. The total number of training days should not exceed 10. All costs related to the training will be shouldered by the winning bidder. These include but not limited to, lease of venue, meals, transportation of participants to and from the training venue, trainer fees, etc. ASTI may, at its discretion, prefer to conduct the training in its office premises. In that case, the lease of venue may be waived. The training must be conducted at an agreed schedule with the end user.

6) At the end of the implementation phase, the winning bidder must submit a comprehensive documentation on the final setup. The documentation should include a network / logical diagram, configuration settings, and all manuals.

7) Progress payment is allowed based on the following deliverable:

Activity: Delivery, Installation and Configuration of Hardware / Software  
 Duration: Within Fifteen (15) Calendar days from Issuance of NTP  
 % Progress: 95%

Activity: Implementation  
 Duration: Within thirty (30) calendar days from Issuance of NTP.  
 % Progress: 2.0%

Activity: Knowledge Transfer  
 Duration: Within thirty (30) calendar days from implementation acceptance.  
 % Progress: 2%

Activity: Documentation  
 Duration: Within thirty (10) calendar days from conduct of knowledge transfer  
 % Progress: 1%

**TOTAL: / P18,429,991.82**

**(Total Amount in Words)**

**Eighteen Million Four Hundred Twenty-Nine Thousand Nine Hundred Ninety-One & 82/100 Pesos**

The contract price is inclusive of taxes and other fees or charges. In case of failure to make the full delivery within the time specified above, a penalty of one-tenth (1/10) of one percent for every day of delay shall be imposed on the undelivered item/s. Once the cumulative amount of liquidated damages reaches ten percent (10%) of the amount of the contract, DOST-ASTI may rescind or terminate the contract, without prejudice to other courses of action and remedies available under the circumstances and in accordance with the provisions of the latest implementing rules and regulations of RA 9184.

Conforme:


Very Truly Yours,

**JOEL JOSEPH S. MARCIANO, JR., Ph.D.**

Acting Director

(Signature over Printed Name of Supplier)

(Date)

Fund Cluster:	09	ORS / BURS No.:	022081012018-02-000289
Funds Available:	₱18,429,991.82	ORS / BURS Date:	December 4, 2018
		Amount:	₱18,429,991.82
 GAY CONCEPCION S. BUGAGAO Accountant III			



03 December 2018

**NOTICE TO PROCEED**  
**PUBLIC BIDDING**

**MR. FEDERICO C. PARAS**  
Government Specialist, ICT Solutions  
**Accent Micro Technologies, Inc.**  
8/F Philippine Stock Exchange Center  
East Tower, Exchange Road  
Ortigas Center, Pasig City

Dear Mr. Paras,

Notice is hereby given to **Accent Micro Technologies, Inc.** that work/delivery may proceed for the following procurement details:

Contract Name	:	<b>Supply, Delivery, Installation, and Configuration of Storage Server</b>
Purchase Request No.	:	<b>DATOS-18-08-6193</b>
Purchase / Work Order No.	:	<b>DATOS-18-12-0013</b>
Total Contract Price	:	<b>₱ 18,429,991.82</b>

(inclusive of taxes, import duties and all other charges or fees)

Total Contract Price in Words : **Eighteen Million Four Hundred Twenty-Nine Thousand Nine Hundred Ninety-One & 82/100 Pesos**

Upon signing receipt of this Notice, you are responsible for performing the services under the terms and conditions of the Agreement/Purchase Order/Work Order and in accordance with the schedule of requirements/delivery schedule.

You are also hereby required to file a Warranty Security for a minimum period of three (3) months, in the case of Expendable Supplies, or a minimum period of one (1) year, in the case of Non-Expendable Supplies, after acceptance by the Procuring Entity of the delivered supplies. It shall be either retention money in an amount equivalent to at least one percent (1%) of every progress payment, or a special bank guarantee equivalent to at least one percent (1%) of the total contract price. The said amounts shall only be released after the lapse of the warranty period or, in the case of Expendable Supplies, after consumption thereof: Provided, however, That the supplies delivered are free from patent and latent defects and all the conditions imposed under the contract have been fully met.

Note that failure to comply with the above requirements and failure to perform the services under the terms and conditions of the Agreement/Purchase Order/Work Order may constitute grounds for its forfeiture.

Please acknowledge receipt and acceptance of this Notice by signing in the space provided below. There are two (2) copies of this document; you may keep one copy and return the other to the Bids and Awards Committee (BAC) Secretariat of the Advanced Science and Technology Institute. Should you have any questions or clarifications, you may reach us at bac-sec@asti.dost.gov.ph.

Respectfully,

  
**JOEL JOSEPH S. MARCIANO, JR., Ph.D.**  
Acting Director

POA

DATE OF ISSUANCE:	RECEIVED BY:	WARRANTY SECURITY
	(Signature over Printed Name)	Type of Warranty Security: _____
	(Date and Time)	Amount of Warranty Security: <b>₱</b> _____
		O.R. No.: _____