



कृषिमूला ऋद्धिः

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Tender Document

for

Various IT procurements at NAU

[NAU/IT/04-2015-16]

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Chapter 1: Tender Notice - NAU/IT/04-2015-16

Various IT procurements at NAU [NAU/IT/04-2015-16]

Department of Information Technology is having role of providing services like Internet, Network Management and all other automation. This tender is intended to procure internet bandwidth and strengthening network management & maintenance in almost all campuses of Navsari Agricultural University.

| | |
|--|-----------------------------|
| Tender available for downloading | 28/01/2016 to 17/02/2016 |
| Last date for submission of tender fee, EMD and other documents. | 19/02/2016 up to 18:00 Hrs. |
| Tender Fees | Rs. 1000 |

The bidder who is participating in this tender can take part with any groups and EMD would be applicable accordingly. Participation in this tender for all group is not compulsory but participation for all items under each group is compulsory. Following groups of procurements are invited in this tender.

| Procurements (Groups) | EMD (In Rs.) | Bid Validity | Pre Bid Meeting (Date & Time) |
|--|-------------------|--------------|----------------------------------|
| Internet Bandwidth and IP Sec VPN services | 51,000 | 90 Days | 4/2/2016 (10:00) |
| Firewall Services | 15,000 | 90 Days | 4/2/2016 (14:00) |
| Biometric Authentication & IP Camera | 4,500 | 90 Days | Not required |
| Network Management Software & Managed Network Configuration services | 13,500 | 400 Days | 5/2/2016 (10:00) |
| Network Annual Maintenance Contract | 24,000 | 400 Days | 5/2/2016 (14:00) |
| Network Equipments | 15,000 | 400 Days | Not required |
| LED TV | 2,400 | 90 Days | Not required |
| Rack Mounted Server | 12,600 | 90 Days | 4/2/2016 (13:00) |

The detail requirements, specifications of procurements and tender document will be published on website www.nau.in under tender section. If any future updates /corrigendum regarding tender will be there, it will be only published in website www.nau.in / www.nprocure.com during tender period. Bidder may check www.nau.in / www.nprocure.com periodically during tender period. Bidder can participate in this tender through www.nprocure.com only.

Pre Bid Meetings are arranged for each procurement groups separately as per scheduled specified. The scope of the procurements will be elaborated and discussion would be took place in the form of question answer between bidders and tender invitee. Participation in Pre Bid Meetings is not compulsory for participation in this tender, but bidder are requested to take part for understating requirement undoubtedly.

Venue of Pre Bid Meetings: Conference Hall, ASPEE Agribusiness Management Institute,
Navsari Agricultural University, Navsari - 396450

Chapter 2: Guidelines and Terms & conditions

| | | |
|----|--|---|
| 1. | Contents of the tender document & Clarification of tender document | |
| | 1.1 | The parties are expected to examine all instructions, forms, terms and requirements in the tender document. Failure to furnish all information required by the tender document or submission of a bid not substantially responsive to the tender document in every respect will be at the party's risk and may result in the rejection of the bid. |
| | 1.2 | A prospective party requiring any clarification on the tender document may clear their doubt in Pre Bid Meetings only. If any bidder is not attending this meeting is considered that he is well aware with requirements of this tender. In future bidder can't claim that they were not aware about pre-bid meeting discussions. |
| 2. | Amendment of tender document | |
| | 2.1 | At any time prior to the last date for receipt of bids, the Purchaser, may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective party, modify the tender document by an amendment. |
| | 2.2 | The amendment will be notified through website (www.nau.in / www.nprocure.com) to all prospective parties. So all the bidders are requested to frequently visit the Navsari Agricultural University website. |
| | 2.3. | In order to afford prospective parties reasonable time in which to take the amendment into account in preparing their bids, the Purchaser may, at its discretion, extend the last date for the receipt of Bids. |
| 3. | Bid Prices | |
| | 3.1 | The bidders should have to quote the prices in Indian Rupees for the each including installation, configuring, commissioning, labour, transportation and taxes charges. Prices quoted must be firm and final and shall remain constant throughout the bid validity period of the contract and shall not be subject to any upward modifications, whatsoever. |
| | 3.2 | Travel expenditures of man power for installation and configuration will not be given by Navsari Agricultural University. |
| 4. | Site Conditions | |
| | 4.1 | It will be imperative on each party to fully acquaint him with the Navsari Agricultural University building conditions and factors which would have any effect on the performance of the work and / or the cost. |
| 5. | Selection of Bidders | |
| | 5.1 | Selection of each bidders will be done on the basis of the overall grand total obtained for the individual procurement group. |
| 6. | Documentation | |
| | 6.1 | The party shall supply the following documents at the time of Acceptance Test: Complete set of Technical/Operation and Maintenance Manual. |
| 7. | Terms of Payment | |
| | 7.1 | The Bidder should specifically note that no advance payment will be made. |
| | 7.2 | The payment of all charges shall be made after satisfactory completion of the work as specified. |
| | 7.3 | The annual charges will be paid in advance for (1) Internet Bandwidth and IP Sec VPN services and (2) Firewall Service Renewal, once the configuration will be done satisfactory. |
| | 7.4 | The annual charges for " <u>Network Annual Maintenance Contract</u> " will be paid in advance. |

| | | |
|----|---|--|
| 8. | Rights | |
| | 8.1 | Right is reserved to accept or reject any or all tender without assigning any reasons thereof. |
| 9 | Warranty | |
| | 9.1 | The parties should warrants that the Goods supplied under this tender are new, unused, of the most recent or current models and those they incorporate all recent improvements in design and materials unless provided otherwise in the tender. This warranty shall remain valid for a period of a minimum 12 months after the Goods or any portion thereof as the case may be, have been delivered, commissioned and accepted at the final destination. |
| | 9.2 | The Purchaser shall promptly notify the party in writing of any claims arising under this warranty. |
| | 9.3 | Upon receipt of such notice, the party shall, within 48 hours and with all reasonable speed, repair or replace the defective Goods or parts thereof, without cost to the Purchaser. |
| | 9.4 | If the Supplier, having been notified, fails to remedy the defect(s) within the period specified in 9.3 above, the Purchaser may proceed to take such remedial action as may be necessary, at the party's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract. |
| 10 | Conditions for Internet Bandwidth and IP Sec VPN services | |
| | 10.1 | The Bidder has to provide Internet Leased Line Bandwidth (Uncompressed and unshared) that means (1:1). It applied to Internet Bandwidth and IP Sec VPN services. |
| | 10.2 | Leased Line must be terminated to Server Room, Navsari Agricultural University, Navsari and it has to install in server room through CAT6 cable. Similarly, all VPN node connectivity need to be install at specified location using CAT6 cable. |
| | 10.3 | Leased Line / IP Sec VPN connectivity must be installed and configured in Fortinet Firewall (Fortigate 1000C Model). ISP's technical person must know the configuration aspects in relation to this said Firewall. |
| | 10.4 | 10 Live IP addresses must be supplied. |
| | 10.5 | ISP must cover all charges of installation and devices (tower, wireless device, router, etc). Navsari Agricultural University will not bear any extra cost. |
| | 10.6 | The ISP must have centralized trouble ticketing tool for call logging, monitoring and troubleshooting purpose. In any case both bandwidth down time will not be tolerate and if it happens supplier will lose security deposit and other necessary actions will be took place. |
| | 10.7 | University will intimate important events to the supplier where special stand by bandwidth is expected for precautions to avoid fault situations. |
| | 10.8 | Supplier has to commence and complete the installation as per the tender requirement within 15 working days after getting purchase order. The actual inquired service will commence from 1st April, 2016 only. |
| | 10.9 | If supplier will not complete installation within the time limit it will be considered as failure in delivering services which result disqualifying from this tender and company would be black listed. |
| | 10.10 | This service is inquired for the 3 years with quoted price of yearly rental charges. If service provider is not satisfactory delivering the services the contract will not be renewed. Rights of justifying service satisfaction will be with Navsari Agricultural University authorities. |

SEAL & SIGNATURE OF BIDDER

| | | |
|----|---|--|
| 11 | Conditions for Network Annual Maintenance Contract | |
| | 11.1 | The responsibility and liability of the persons carrying out the maintenance activities will be on successful bidders only, and NAU will not responsible for the same. |
| | 11.2 | Successful bidder has to appoint the person who must be well aware of different activities as specified in the scope of work for this contract. |
| | 11.3 | If IT department of NAU found that the maintenance activity is not performed by the person allotted by the successful bidder than immediate replacement of person need to be done. |
| | 11.4 | If repetitive failure in maintenance activity would be reported, this Network Annual Maintenance Contract can be terminated without giving any warning. In such case successful bidder have to refund the services charges for remaining period, failing which may result forfeit of security deposit, successful bidder will be black listed and appropriate legal actions would be taken by NAU. |
| | 11.5 | If any damage of devices in NAU premises during maintenance activity would took place, the successful bidder has to replace the device at their cost in such cases. |
| 12 | Conditions for Firewall Services & Network Management Software & Managed Network Configuration services | |
| | 12.1 | Successful Installation of software for "Firewall Services" & "Network Management Software & Managed Network Configuration services" must be carried out by the successful bidder. |
| | 12.2 | Complete training of software for "Firewall Services" & "Network Management Software & Managed Network Configuration services" must be given to staff of IT department, NAU. |
| | 12.3 | Periodic updates of software must be done by the successful bidder and the relevant training need to be given to the staff of IT department, NAU. |

SEAL & SIGNATURE OF BIDDER

Chapter 3: Bidder Information

1. Name of supplier / firm :
2. Complete postal address :
3. Telephone Number :
4. FAX Number (if any) :
5. E-mail address (if any) :
6. Sales Tax / Service Tax No. :
7. VAT / TIN No. :
8. PAN No. :
9. Registration No. :
10. Any other details:

We agree to abide by the terms and conditions of supply mentioned in this tender document.

Signature of Bidder
(With Stamp, Name & Designation)

Chapter 4: Technical Bid Document (Checklist Documents)

| Sr. No. | Check List Documents | Remarks |
|---------|--|-----------|
| 1 | Scan copy of Tender Fee: Demand draft of Rs. 1000/- (Non-Refundable) | Mandatory |
| 2 | Scan copy of EMD : Demand draft as applicable (Refundable) | Mandatory |
| 3 | Valid Registration Certificate of bidders firm. (Shop Act Registration / Partnership deed /Memorandum of article/Registration of firm / Small Scale Industry Registration) | Mandatory |
| 4 | Scan copy of Chapter 2: Guidelines and Terms & conditions | Mandatory |
| 5 | Scan copy of Chapter 3: Bidder Information | Mandatory |
| 6 | Last 3 Year Income Tax Returns of financial year 2012-13, 2013-14, 2014-15 | Mandatory |
| 7 | Original affidavit from the bidder that business entity is not blacked listed (notarized on Rs. 100 stamp paper) | Mandatory |
| 8 | Scan Copy of ISP License issued by Department of Telecom (DoT), Government of India. (For those who are applying under procurement group <u>Internet Bandwidth and IP Sec VPN services</u> , rest may ignore.) | Mandatory |
| 9 | Manufacturer certificate / subsidiary company certificate / Fresh Authorization Certificate on OEM's letterhead (whichever is applicable) for <u>Firewall Services</u> group only. | Mandatory |

Chapter 5: Tender Fee, EMD and Submission Address

Tender Fee: Bidder has to submit nonrefundable Tender Fee 1000 in the form of Bank Draft in favor of "Drawing and Disbursing Officer (DDO) ASPEE Agri. Mgmt. Inst. A/c", payable at Navsari. Tender fee is compulsory for tender participation, without which tenders will not be considered.

Earnest Money Deposit: Tender shall be accompanied by an earnest money, without which tenders will not be considered. The amount of EMD should be deposited in the form of Nationalized or Scheduled Bank Draft in favor of "Drawing and Disbursing Officer (DDO) ASPEE Agri. Mgmt. Inst. A/c", payable at Navsari. Bidder has to deposit EMD as per the participation in procurement groups.

| Procurements (Groups) | EMD (In Rs.) |
|--|--------------|
| Internet Bandwidth and IP Sec VPN services | 51,000 |
| Firewall Services | 15,000 |
| Biometric Authentication & IP Camera | 4,500 |
| Network Management Software & Managed Network Configuration services | 13,500 |
| Network Annual Maintenance Contract | 24,000 |
| Network Equipments | 15,000 |
| LED TV | 2,400 |
| Rack Mounted Server | 12,600 |

Refund of earnest money: The earnest money of unsuccessful Bidder will be refunded.

Forfeiture of earnest money: The earnest money will be forfeited in the following cases:

- When Bidder withdraws or modifies the offer after opening of tender.
- When the Bidder does not deposit the security money after the work/purchase order is given.

Security Deposit: Successful bidder shall deposit security/performance guarantee money (5% of purchase/work order) in the form of Bank Draft in favor of "Drawing and Disbursing Officer (DDO) ASPEE Agri. Mgmt. Inst. A/c", payable at Navsari or Performance Bank Guarantee (25% of purchase/work order).

Refund of Security Deposit: The amount of security deposit will be refunded after completion of warranty period / service contract.

Forfeiture of Security Deposit: The security deposit will be forfeited in the following cases:

- When works/services are not successfully executed as per requirement mentioned in the tender document.
- When successful bidder terminate the works/services in during execution period.
- When any issue raised in quality or services during warranty period

Tender Fee, EMD and Tender Submission Address:

Director IT,
ASPEE Agribusiness Management Institute, Navsari Agricultural University,
Eru Char Rasta, Navsari- 396450 (Gujarat)

Chapter 6: Instructions to bidders for Online Tender Participation

1. All tender documents can be downloaded free from the website <http://au.nprocure.com> or <http://www.nprocure.com>
2. All bids should be submitted online on the website <http://au.nprocure.com> or <http://www.nprocure.com>
3. All bids should be digitally signed. For the details regarding digital signature certificate and related training involved the below mentioned address should be contacted

(n)Code Solutions
A division of GNFC
301, GNFC Infotower, Bodakdev,
Ahmedabad 380054 (India)
Tel. : +91 79 26857316 / 17 / 18
Fax : +91 79 26857321
Toll Free Number : 1-800-233-1010
www.ncodesolutions.com

4. The user can get a copy of instructions to online participation from the website <http://au.nprocure.com> or <http://www.nprocure.com>
5. The service provider should register on the website through the "New User" link provided at the home page, the registration on the site should not be taken as registration or empanelment or any other form of registration with the tendering authority.
6. The application for training and issue of digital signature certificates should be made at least 72 hours in advance to the due date and time of tender submission.
7. For all queries regarding use of digital signature certificate should be addressed to M/s. (n)Code Solutions.
8. For all queries regarding tender specifications and any other clauses included in tender should be addressed to personnel in tendering office address provided below

Director IT,
ASPEE Agribusiness Management Institute,
Navsari Agricultural University,
Eru Char Rasta, Navsari- 396450 (Gujarat)
Email: dit@nau.in, Phone: 02637-282960

Chapter 7: Specification, Requirement and Scope of work for procurements

Procurements Group-1: Internet Bandwidth and IP Sec VPN services

| Tender Item No. | Item Specification | Quantity |
|-----------------|---|----------|
| 1.1 | Internet Leased Line Bandwidth (Uncompressed and unshared) of 50mbps (1:1) at NAU Server Room located at Navsari. | 1 |
| 1.2 | Internet Leased Line Bandwidth (Uncompressed and unshared) of 5mbps (1:1) at NAU Bharuch Campus, along with IPSec VPN connectivity at NAU Server Room located at Navsari. | 1 |
| 1.3 | Internet Leased Line Bandwidth (Uncompressed and unshared) of 5mbps (1:1) at NAU Dediypada Campus, along with IPSec VPN connectivity at NAU Server Room located at Navsari. | 1 |
| 1.4 | Internet Leased Line Bandwidth (Uncompressed and unshared) of 5mbps (1:1) at NAU Waghai Campus, along with IPSec VPN connectivity at NAU Server Room located at Navsari. | 1 |
| 1.5 | Internet Leased Line Bandwidth (Uncompressed and unshared) of 5mbps (1:1) at NAU Paria Campus, along with IPSec VPN connectivity at NAU Server Room located at Navsari. | 1 |

- Item 1.1 will be terminated with Firewall available at Navsari campus, while for Item 1.2,1.3,1.4,1.5 has to manage by successful bidder's routing devices, these routing devices cost / rental charges will not be paid by NAU.
- Bidder must be able to configure bandwidth and Live IP address at Firewall available on Navsari campus.
- Bidder has to arrange voltage stabilizer devices to secured their routing device due to major voltage fluctuation observed. NAU will be not responsible for damage of these routing devices.

Procurements Group-2: Firewall Services

| Tender Item No. | Item Specification | Quantity |
|-----------------|---|----------|
| 2.1 | New appliance price with specification as per Annexure-1 after deduction of Buyback price of Fortigate 1000C and Fortigate Analyzer 100C appliances. [Offer price = New appliance price - Buy back device price] | 1 |
| 2.2 | Subscription charges for one year of Item 2.1 (This offer will remain valid for next 2 subsequent renewals) | 1 |

Procurements Group-3: Biometric Authentication & IP Camera

| Tender Item No. | Item Specification | Quantity |
|-----------------|---|----------|
| 3.1 | <u>1.3MP IR Indoor/Outdoor Mini Dome Camera with 4mm Fixed Lens</u> <ul style="list-style-type: none"> • 1/3" Progressive Scan CMOS Sensor • 1280 x 960 Resolution at 30 fps | 5 |

| | | |
|-----|--|---|
| | <ul style="list-style-type: none"> • 4mm Fixed Lens • 73.1° Angle of View • Make: Hikvision/Dahua | |
| 3.2 | <p><u>Access Control and Time-Attendance with door controller</u></p> <ul style="list-style-type: none"> • Card, Fingerprint & PIN • Finger Templates: 9600 and above • LCD (128x64 Dot-Matrix) • Touch Sense Keys (16) • USB • Communication: Ethernet, Wi-Fi and 3G • Events Buffer: 5,00,000 and above • Exit Switch Port • Door Status Sense: Programmable NO, NC, Supervised • Door Lock Relay: Relay SPDT, Form C, 1A@30VDC • Door Lock Power: Internal12VDC@0.5A or External • Auxiliary Input Port: Programmable NO, NC, Supervised • Auxiliary Output Relay: Relay SPDT, Form C, 1A@30VDC • Tamper Detection: Yes • Buzzer: Yes • Indications: 4 LEDs (Status, Alarm, Allowed and Denied) • CPU: 32 Bit RISC or higher • Memory: 512KB Rom and 128KB RAM or higher • Authentication Cards: 15 NOs. • Necessary software to maintain the log, monitoring the events and registrations of users. | 1 |

Procurements Group-4: Network Management Software & Managed Network Configuration services

| Tender Item No. | Item Specification | Quantity |
|-----------------|---|----------|
| 4.1 | Configuring (set IP and SNMP) 24 port manageable switch [Location of devices were described in Annexure-2] | 69 |
| 4.2 | Configuring (set IP and SNMP) 2.4 GHz wireless device short range [Location of devices were described in Annexure-2] | 92 |
| 4.3 | Configuring (set IP and SNMP) 5.8 GHz wireless Device long range [Location of devices were described in Annexure-2] | 58 |
| 4.4 | Network Management Software with three year subscription charges [Scope of work & requirements were described under Annexure-3] | 1 |
| 4.5 | All in one computer system for installing Network Management Software <ul style="list-style-type: none"> • 4th Generation Intel(R) Core(TM) i3-4170 Processor (3M Cache, 3.70 GHz) • RAM 4GB • 1 TB HDD • 21" or Higher Screen Size • OS: WINDOWS 10 • Brand: DELL / LENOVO / HP • HDMI Output | 1 |

Procurements Group-5: Network Annual Maintenance Contract

| Tender Item No. | Item Specification | Quantity |
|-----------------|---|----------|
| 5.1 | Charges of Annual Network Annual Maintenance Contract [Scope of work & requirements were described under Annexure-5] | 1 |

Procurements Group-6: Network Equipments

| Tender Item No. | Item Specification | Quantity |
|-----------------|--|----------|
| 6.1 | 24-Port Gigabit Smart Switch with 2 Gigabit SFP ports + 2 RJ-45 Ports <ul style="list-style-type: none"> • Make: Dlink / Cisco | 16 |
| 6.2 | ST-SC Multi Mode 3M Fiber Optic Patch Cord <ul style="list-style-type: none"> • Make: Dlink / Optilink | 10 |
| 6.3 | SC to SC fiber optic patch cable SM SIMPLEX 3 meters SINGLE MODE <ul style="list-style-type: none"> • Make: Dlink / Optilink | 20 |
| 6.4 | Wireless Router <ul style="list-style-type: none"> • 2.4 GHZ wireless Device Short Range • CPU speed 180MHz, RAM 16MB, LAN ports 1, Gigabit No, POE Yes, Integrated Wireless 1, Wireless standards 802.11an, Antenna gain dBi, TX power 12dBm, Max Power consumption 5W, Yes (with existing Devices), Maximum Distance 1000 mtr • Make: Ubiquiti / Ruckus | 12 |
| 6.5 | Wireless Router <ul style="list-style-type: none"> • 5.8 GHZ wireless Device Long Range Up to 4 Kms. • CPU speed 400MHz, RAM 32MB, LAN ports 1, Gigabit No, POE Yes, Integrated Wireless 1, Wireless standards 802.11an, Antenna gain dBi, TX power 23dBm, Max Power consumption 5W, Yes (with existing Devices), Maximum Distance 4000 mtr • Make: Ubiquiti / Ruckus | 10 |
| 6.6 | 6 U wall mounting Rack <ul style="list-style-type: none"> • Rigid frame that can be fixed to the wall, Adjustable rails in the front and rear, Front section with glass door and lock, Top and bottom cable entry facility, cable managers, Earth Continuity kit, Steel powder coated cabinet (Bidder has to carry out installation/fixing) • Make: Valrack / Alpine | 6 |
| 6.7 | 42U Server Rack <ul style="list-style-type: none"> • Offset mounting should give unlimited combinations for cable management at the rear end. The cables can be easily run through the vertical channels and are made to pass through the cable extender arm , which is difficult to organize in cabinets without offset facility. • Space utilization on the total footprint area need to be maximum 82%. • Mounting Rails. • Keyboard tray. • Ventilated top. • Cable Management facilities. • Make: Valrack / Alpine | 2 |
| 6.8 | Cable <ul style="list-style-type: none"> • Cat-6 UTP cable 305 mtr. • Make: D-Link / Finolex | 12 |
| 6.9 | I/O Box <ul style="list-style-type: none"> • Single Cat-6 with surface mount box • Bidder has to carry out installation/fixing • Make: D-Link | 10 |
| 6.10 | Patch Code | 20 |

| | | |
|------|---|----|
| | <ul style="list-style-type: none"> 7 feet Cat-6 factory crimped patch cord Make: D-Link Color: Black, Red, Orange, Yellow, Green, Blue, Purple, Gray, White | |
| 6.11 | Patch Code <ul style="list-style-type: none"> 3 feet Cat-6 factory crimped patch cord Make: D-Link Color: Black, Red, Orange, Yellow, Green, Blue, Purple, Gray, White | 50 |
| 6.12 | Patch Code <ul style="list-style-type: none"> 5 mtr. Cat-6 factory crimped patch cord Make: D-Link Color: Black, Red, Orange, Yellow, Green, Blue, Purple, Gray, White | 20 |
| 6.13 | Pair of single media Fiber optics to UTP Convertor <ul style="list-style-type: none"> Make: Willet 2700 | 10 |

Procurements Group-7: LED TV

| Tender Item No. | Item Specification | Quantity |
|-----------------|--|----------|
| 7.1 | <u>Ultra HD (4K) Smart LED TV (55")</u> <ul style="list-style-type: none"> LED Display 140 cm (55) Ultra HD (4K), 3840 x 2160 Smart TV 4 x HDMI, 3 x USB Ethernet Refresh Rate - 60 Hz Built-in Wi-Fi | 1 |

Procurements Group-8: Rack Mounted Server

| Tender Item No. | Item Specification | Quantity |
|-----------------|---|----------|
| 8.1 | <u>Server Intel Xeon Two Processor Quad Core or higher Rack Mounted</u> <ul style="list-style-type: none"> CPU: Intel Xeon E5-2609 v2, 2.5 GHz ,10 MB L3 Cache or higher or equivalent rolled over Next Generation Processor. Chipset : Intel C600 or better compatible with CPU. Motherboard : OEM / Intel Original Motherboard. Slots : 2 PCI/PCI Express Memory : 16GB 1067/1333 MHz DDR3 RAM Expandable to 24GB. Hard Disk Drive : 3 x 600 GB, 10,000 rpm SAS or higher RAID Controller : Minimum 3/4 ports SAS Controller with 512 MB cache Video Controller : To support VGA or above resolution Keyboard and Mouse Bays : Minimum 2 Internal Ports : 3 USB Port, 1 Serial Port Cabinet : Rack Mounted Certifications : Windows, Red Hat or Novell certified, Compliance & Support DVD ROM : 8x or better DVD ROM Drive Networking : Dual LAN (10/100/1000) Network Card with asset Feature tracking and security management, remote wake up Power Management : Screen blanking, hard disk and system idle mode in power on, set up password, power supply surge protected, automatic server reboot. Power Supply : Redundant Power Supply. | 2 |