

Tender for Procurement of Blade Enclosure, Server & Storage

WBIDC is inviting bids for procurement of servers and server related hardware and software as per **Annexure-I**. The eligible vendors may bid for the above mentioned items as per the mentioned specification. The details of the tender are tabulated below:

Items	Last Date of Receipt	Date of opening	Contact for Enquiries
As per Annexure-I	10.08.2009 before 2 p.m.	10.08.2009 at 4 p.m.	Sri Surojit D' Rozario System Administrator WBIDC 5, Council House Street Kolkata - 700001 Phone:22428908 it@wbidc.com

I. Eligibility : The vendors with the following eligibility criteria may submit price bid

- a) The vendor must be an authorized dealer/distributor/partner of the quoted item
- b) The vendor must not be disqualified / blacklisted from any government organization.

II. Bid Process :

- a) WBIDC may accept/reject any bid without ascertaining any reason what so ever.
- b) Documents in support of eligibility must also be attached along with the bid including letter from the parent manufacturer authorizing the bid.
- c) Brochures and any other documents may also be attached.

A.K.Pandey
Company Secretary

Annexure-I

Number of Blade Enclosures to be procured: 01 (one)

Number of Blade Servers to be procured: 03 to 04(three to four)

UPS: 01 (one)

Backup software: 01

Rack: 01

Blade Enclosure	Specification attached
Production Server	Specification attached
Development Server	Specification attached
Storage	Specification attached
LTO/Tape Drive	400/800 GB External or 800/1600GB External/Card Required
Back Up software	IBM Tivoli
Power	Online UPS with Backup-5 KVA
Rack	42U APW Cyber rack with accessories

BLADE ENCLOSURE

Item	Description of Requirement	OR
Blade Chassis	Solution to house the required number of blade servers in smallest number of enclosures Should have support for full height and half height blades in the same enclosure, occupying a max of 6U rack height	Solution to house the required number of blade servers in smallest number of enclosures Should have support for full height blades in the same enclosure, occupying a max of 9U rack height
	Same enclosure should support Intel Xeon,AMD Opteron and EPIC Itanium based blades	Same enclosure should support Intel Xeon,AMD Opteron, RISC/Cell
	Should support Hot Pluggable & Redundant Management Modules.	
	Should provide an highly reliable and high performance mid-plane/back-plane design in the blade enclosure. Should provide detailed technical information.	Should provide an highly reliable and high performance redundant mid-plane design in the blade enclosure.
	Should be able to accommodate the blade servers mentioned in the sections below in the proposed blade enclosures. The proposals must offer the most dense packaging possible for the blade servers in the enclosure and maximum headroom for future expansion in the offered enclosures.	
	Support simultaneous remote access for different servers in the enclosure.	
Interconnect	Should support simultaneous housing of Ethernet, FC, SAS interconnect fabrics offering Hot Pluggable & Redundancy as a feature	Should support simultaneous housing of Ethernet, FC interconnect fabrics offering Hot Pluggable & Redundancy as a feature
Blade Server Interconnect to LAN/ Network	The enclosure should be populated with 2 nos of Ethernet Pass thru modules for connectivity to external switch and 2 nos of Fiber Channel Pass thru modules for connectivity to external SAN switch	
Power Supply	The enclosure should be populated fully with power supplies of the highest capacity available with the vendor. Power supplies should support N+N as well as N+1 redundancy configuration, where N is greater than 1.	
Cooling	Each blade enclosure should have a cooling subsystem consisting of redundant hot pluggable fans or blowers enabled with technologies for improved power consumption and acoustics	
Warranty	3 years comprehensive warranty, 24 x 7 support	
System Software	Management/controlling softwares have to be from the OEM itself.	
Management	All required System software has to be from the OEM itself.	
	Complete GUI with view of the individual blade chassis, multiple chassis in a rack, blade servers, power consumption at chassis level and blade level, intake air temperature and temperature of various thermal zones within the server.	
	Deployment - GUI, console-based deployment server to set up multiple OSan d application configurations and Drag-and-drop servers into configurations, with Built-in pxe services and pxe image tools and script generation and editing. Grouping of blade servers in the console by physical location of rack/enclosure/bay should be possible.	
	Management – Comprehensive web enabled system management tool that monitors the system health, environment, critical action etc, With its own data engine to store status reports, alerts and error notifications.	
Availability	The blade servers should have the capability to be configured as an online spare blade. This spare blade automatically comes up in case one of the primary blade servers fails, when configured so.	
Deployment & Remote Management	Complete Hardware based Remote Administration from a standard web-browser with Event logging, detailed server status, Logs, Alert Forwarding, virtual control, remote graphical console, Remote Power Control / Shutdown, Virtual Media for Remote boot and configuration, Virtual Text and Graphical Control, Automatic IP configuration with 128 bit SSL Encryption Security. The blade system should have the capability of managing all the blades in the same enclosure simultaneously.	
Tape Blade	An LTO3 Tape blade must be included in the chassis	Optional

PRODUCTION SERVER

Item	Description of Requirement	OR
Processor	Latest generation x86-64 processor , 2* Intel Quad Core processors with 2.66 Ghz clock speed or higher clock frequency available , based on Intel 5500 chipset, offering 8MB shared L3 cache	
Memory	16 GB scalable at least upto 96GB, using PC3-8500 DDR3Registered (RDIMM) memory modules	
Memory Protection	Advanced ECC with multi-bit error protection supporting memory mirroring and memory lockstep mode	
Hard disk drive	2 * 146 GB 10K rpm hot plug SFF SAS drives	
Controller	Integrated SAS Raid Controller with RAID 0, 1	
Networking features	Embedded Dual Port 10GbE Multifunction Server Adapter. Additional 2 nos of Gigabit ports for cluster heart beat One additional 10/100 NIC dedicated for remote management.	Embedded Dual Port 10/100/1000 ethernet Adapter. Additional 2 nos of Gigabit ports for cluster heart beat One additional 10/100/1000 NIC dedicated for remote management. Should connect to two separate ports via redundant midplane.
Ports	Minimum of 1 * internal USB 2.0 port and 1* internal SD card slot	
Blade Server Connectivity to SAN	Dual port Fiber Channel HBA internal to the Server Blade.	Should connect to two separate ports via redundant midplane.
Blade Server Interconnect to LAN/ Network	Should have the capability to connect each of the NIC cards on the blades to the network switch provided in the data center with the help of Ethernet Pass thru modules	
Bus Slots	Minimum of 2 PCI-e x8 based mezzanine slots supporting Ethernet, FC adapters	
Graphics	Integrated, 1600x1280x64K 16M color (32 MB DDR1 memory)	1440 x 900 x 32-bit color at 60Hz 16 MB SD RAM
Industry Standard Compliance	ACPI 2.0 Compliant; PCI 2.2 Compliant; WOL Support; Microsoft® Logo certifications; USB 2.0 Support	
OS Support	Should support Microsoft Windows Server,Windows Server Hyper-V,RedHat Enterprise Linux,SuSE Linux Enterprise Server,Oracle Enterprise Linux,Solaris10 for x86/x64 based systems,VMWare ESX server,HP Citrix Essentials for Xenserver,Netware	Microsoft Windows Server 2008, Microsoft Windows Small Business Server 2008, Microsoft Windows Server 2003 and R2 (Standard/Web/Enterprise Editions) 32-bit and 64-bit, RHEL 5.3 32-bit and 64-bit—with or without Xen, RHEL 4.7 32-bit, SLES 10 32-bit and 64-bit—with or without Xen, Sun Solaris 10, VMware ESX Server 3.5/ESXi 3.5 Update 4
Warranty	3 year warranty. Pre failure warranty on CPU, Memory and Hard disks	3 year warranty. Pre failure warranty on CPU, Memory and Hard disks and expansion cards
Manageability	Should support unified management suite that can monitor and manage all the servers from the Vendor deployed in our data center.	
Remote Management	Should be possible to manage the servers and get access to critical information about the health of the server from any remote location with just the help of a standard Web browser (Internet Explorer)	
	Integrated management ASIC	
	Hardware based and OS independent remote management. Remote management should support remote power on/off of the server and should have the capability to boot the blade server from a remote floppy or CDROM drive or an image of the same.	
	Should be possible to remotely manage each blade server individually. Should support access rights for administrators for each blade server individually. Should be able to manage multiple blades in the same enclosure at the same time.	
	Should support 128 Bit SSL encryption	

DEVELOPMENT SERVER

Item	Description of Requirement	OR
Processor	Latest generation x86-64 processor , 2* Intel Quad Core processors with 2.66 Ghz clock speed or higher clock frequency available , based on Intel 5500 chipset, offering 8MB shared L3 cache	
Memory	8 GB scalable at least upto 96GB, using PC3-8500 DDR3Registered (RDIMM) memory modules	
Memory Protection	Advanced ECC with multi-bit error protection supporting memory mirroring and memory lockstep mode	
Hard disk drive	2 * 146 GB 10K rpm hot plug SFF SAS drives	
Controller	Integrated SAS Raid Controller with RAID 0, 1	
Networking features	Embedded Dual Port 10GbE Multifunction Server Adapter.	Should connect to two separate ports via redundant midplane.
Ports	Minimum of 1 * internal USB 2.0 port and 1* internal SD card slot	
Blade Server Interconnect to LAN/ Network	Should have the capability to connect each of the NIC cards on the blades to the network switch provided in the data center with the help of Ethernet Pass thru modules	
Bus Slots	Minimum of 2 PCI-e x8 based mezzanine slots supporting Ethernet, FC adapters	1440 x 900 x 32-bit color at 60Hz 16 MB SD RAM
Graphics	Integrated, 1600x1280x64K 16M color (32 MB DDR1 memory)	
Industry Standard Compliance	ACPI 2.0 Compliant; PCI 2.2 Compliant; WOL Support; Microsoft® Logo certifications; USB 2.0 Support	
OS Support	Should support Microsoft Windows Server,Windows Server Hyper-V,RedHat Enterprise Linux,SuSE Linux Enterprise Server,Oracle Enterprise Linux,Solaris10 for x86/x64 based systems,VMWare ESX server,HP Citrix Essentials for Xenserver,Netware	Microsoft Windows Server 2008, Microsoft Windows Small Business Server 2008, Microsoft Windows Server 2003 and R2 (Standard/Web/Enterprise Editions) 32-bit and 64-bit, RHEL 5.3 32-bit and 64-bit—with or without Xen, RHEL 4.7 32-bit, SLES 10 32-bit and 64-bit—with or without Xen, Sun Solaris 10, VMware ESX Server 3.5/ESXi 3.5 Update 4
Warranty	3 year warranty. Pre failure warranty on CPU, Memory and Hard disks	3 year warranty. Pre failure warranty on CPU, Memory and Hard disks and expansion cards
Manageability	Should support unified management suite that can monitor and manage all the servers from the Vendor deployed in our data center.	
Remote Management	Should be possible to manage the servers and get access to critical information about the health of the server from any remote location with just the help of a standard Web browser (Internet Explorer)	
	Integrated management ASIC	
	Hardware based and OS independent remote management. Remote management should support remote power on/off of the server and should have the capability to boot the blade server from a remote floppy or CDROM drive or an image of the same.	
	Should be possible to remotely manage each blade server individually. Should support access rights for administrators for each blade server individually. Should be able to manage multiple blades in the same enclosure at the same time. Should support 128 Bit SSL encryption	

STORAGE

Paramater	Functionality	OR
Operating System & Clustering Support	<ol style="list-style-type: none"> 1. The storage array should support industry-leading Operating System platforms including: <i>Windows Server 2003/2008 Standard/ Enterprise Edition and Linux.</i> 2. Offered Storage Shall support all above operating systems in Clustering. 	
Capacity & Scalability	<ol style="list-style-type: none"> 1. The Storage Array shall be offered with 8 nos of 146GB SAS drives. 2. Storage shall be scalable to minimum of 60 number of SAS/SATA drives 	Storage shall be scalable to minimum of 48 number of SAS/SATA drives
Architecture & Processing Power	<ol style="list-style-type: none"> 1. The storage array should support dual, redundant, hot-pluggable, active-active array controllers for high performance and reliability 2. Storage array shall support Sustained sequential throughput of more than 800MB/sec from Disk. 3. Storage array shall support at-least 90000 IOPS from Cache. 	Storage array shall support at-least 120000 IOPS from Cache
No Single point of Failure	Offered Storage Array shall be configurable in a No Single Point of configuration including Array Controller card, Cache memory, FAN, Power supply etc.	
Disk Drive Support	Offered Storage Array shall support minimum 146/ 300 / 450GB hot-pluggable Enterprise SAS hard drives along with S-ATA (500GB / 750GB / 1000GB) drives.	
Cache	Offerd Storage Array shall be given with Minimum of 1GB cache per controller in a single unit. Cache shall be backed up in case of power failure for indefinite time either using batteries or capacitors or any other equivalent technology.	
Raid Support	Offered Storage Subsystem shall support Raid 0, 1 , 1+0 , 3, 5, 5+0 and Raid 6 with Dual Parity Protection	
Point in time and clone copy	<ol style="list-style-type: none"> 1. Offered Storage array shall have array based support of (With the help of optional license) Both Snapshot and clone functionality. 2. Offered Storage array shall support at-least 255 point in time copies (Snapshots) and 128 clone copies. 	
Ports	controller.	
Global Hot Spare	<ol style="list-style-type: none"> 1. offered Storage Array shall support Global hot Spare for offered Disk drives. 2. Atleast 2 Global hot spare drive shall be configured for every 30 drives. 	
Logical Volume	Storage Subsystem shall support minimum of 256 Logical Units. Storage Array shall also support creation of more than 2TB volume at controller level.	
Load Balancing & Multi-path	Multi-path and load balancing software shall be provided, if vendor does not support MPIO functionality of Operating system.	The offered Storage should have benchmarking for SPEC 1 and SPEC 2
SAN Switch:		
Ports	<ol style="list-style-type: none"> 1. SAN Switch shall be offered with 8 ports and shall be scalable to 24 Ports. 2. Offered SAN switch shall have 8Gbps ports and shall be backward compatible with 2Gbps / 4Gbps technology. 	
Bandwidth	Offered SAN Switch shall support bandwidth of 128Gigabit / sec.	
Hot code activation	Offered SAN Switch shall support non disruptive hot code activation feature.	
Management	Offered SAN switch shall be manageable through Web, IP, CLI and SNMP.	
Other Features	<ol style="list-style-type: none"> 1. Shall otionally support trunking when adding multiple switches in the same fabric. 2. Shall support Zoning. 3. Shall be supplied with LC-LC cables for all populated ports. 	