

Corrigendum for Tender No. CC-02/2012

Representatives of prospective bidders who had participated in the discussions held during the pre-bid meeting on 14.03.2012, requested for certain amendments in technical as well as other schedules of the Tender document and all present in the meeting consented to requests made for such amendments. Upon considering submissions made in this regard by the prospective bidders, the Committee is pleased to allow the following amendments in the tender document:

Bidders are requested to keep in mind the revised specifications and other changes while filing bid information and use revised proforma, wherever required.

Section III: Schedule of Requirement

1(a). Server (All the options have to be quoted) (Quantity – 4 Nos.)

(i) Quad Core Server (Option – 1)

Parameters	Original Specification	Revised Specification
RAID Controller	SAS-2 (6 Gb/s) Disk Array Controllers with 1 GB Flash-backed Write Cache with battery backup on PCI Express 2.0 x8 slot and supporting RAID levels 0,1,5, 6, 10, 50 and 60. The controller should support online hot spare.	SAS-2 (6 Gb/s) Disk Array Controllers with 512 MB flash or battery backup cache on PCI Express 2.0 x8 slot and supporting RAID levels 0,1,5, 6, 10, 50 and 60. The controller should support online hot spare.
I/O Ports	8 Nos. USB 2.0(2 in front, 4 in rear and 2 internal), 3 RJ45 Port and 4 SFP+ ports.	5 Nos. USB 2.0(2 in front, 2 in rear and 1 internal), 3 RJ45 Port and 2 SFP+ ports.
Certification	Red Hat Enterprise Linux 5 & 6 (for both x86 and AMD 64/EM64T architectures), SUSE Enterprise Linux 10 & 11 (for both x86 and AMD 64/EM64T architectures), Oracle Linux 5 & 6 (for both x86 and AMD 64/EM64T architectures), Microsoft Windows Server 2003 & 2008(for both x86 and AMD 64/EM64T architectures), ACPI 2.0. Compliant, PCIE 2.0 Compliant, PXE Support, WOL Support, Physical Address Extension (PAE) Support, USB 2.0 Support, ISO 9001, 14001, MAIT	Red Hat Enterprise Linux 5 & 6 (for both x86 and AMD 64/EM64T architectures), Microsoft Windows Server 2003 & 2008(for both x86 and AMD 64/EM64T architectures), ACPI 2.0. Compliant, PCIE 2.0 Compliant, PXE Support, WOL Support, Physical Address Extension (PAE) Support, USB 2.0 Support, ISO 9001, 14001
Expansion slots	No. of PCI Express slots (having specification 2.0 or higher) - atleast two x4 slots, four x8 slots and one x16 slot	No. of PCI Express slots (having specification 2.0 or higher) - atleast one x4 slots, four x8 slots and one x16 slot

(ii) Six Core Server (Option – 2)

Parameters	Original Specification	Revised Specification
RAID Controller	SAS-2 (6 Gb/s) Disk Array Controllers with 1 GB Flash-backed Write Cache with battery backup on PCI Express 2.0 x8 slot and supporting RAID levels 0,1,5, 6, 10, 50 and 60. The controller should support online hot spare.	SAS-2 (6 Gb/s) Disk Array Controllers with 512 MB flash or battery backup cache on PCI Express 2.0 x8 slot and supporting RAID levels 0,1,5, 6, 10, 50 and 60. The controller should support online hot spare.
I/O Ports	8 Nos. USB 2.0(2 in front, 4 in rear and 2 internal), 3 RJ45 Port and 4 SFP+ ports.	5 Nos. USB 2.0(2 in front, 2 in rear and 1 internal), 3 RJ45 Port and 2 SFP+ ports.
Certification	Red Hat Enterprise Linux 5 & 6 (for both x86 and AMD 64/EM64T architectures), SUSE Enterprise Linux 10 & 11 (for both x86 and AMD 64/EM64T architectures), Oracle Linux 5 & 6 (for both x86 and AMD 64/EM64T architectures), Microsoft Windows Server 2003 & 2008(for both x86 and AMD 64/EM64T architectures), ACPI 2.0. Compliant, PCIE 2.0 Compliant, PXE Support, WOL Support, Physical Address Extension (PAE) Support, USB 2.0 Support, ISO 9001, 14001, MAIT	Red Hat Enterprise Linux 5 & 6 (for both x86 and AMD 64/EM64T architectures), Microsoft Windows Server 2003 & 2008(for both x86 and AMD 64/EM64T architectures), ACPI 2.0. Compliant, PCIE 2.0 Compliant, PXE Support, WOL Support, Physical Address Extension (PAE) Support, USB 2.0 Support, ISO 9001, 14001
Expansion slots	No. of PCI Express slots (having specification 2.0 or higher) - atleast two x4 slots, four x8 slots and one x16 slot	No. of PCI Express slots (having specification 2.0 or higher) - atleast one x4 slots, four x8 slots and one x16 slot

1(c). Flash IO Storage Cards (Quantity – 2 Nos.)

Parameters	Original Specification	Revised Specification
Capacity	320 GB or higher	300 GB or higher

2(a). Storage Area Network (Quantity – 1 No.)

Parameters	Original Specification	Revised Specification
Manufacturer	Dell, EMC, Hitachi, HP, IBM, Netapp, Oracle	Dell, EMC, Hitachi, HP, IBM, Netapp, Oracle, Fujitsu
Technology	Unified Storage System	Unified Storage Solution
Block Component System	Controller	2 Nos. Host based controller for redundancy & high availability with atleast four 8 Gbps fibre channel ports and atleast four 10 GbE per controller for iSCSI.
	Cache Memory	Minimum 8GB Cache per controller, battery backed up for minimum 96 hours or cache destages to hard disk in case of power failure. Cache should be mirrored across controllers for high availability.
	Standby Power	Standby power unit to support both controller cache destaging to disks.
		2 Nos. Host based controller for redundancy & high availability with atleast two 8 Gbps fibre channel ports per controller and atleast two 10 GbE per controller for iSCSI.
		Minimum 4GB Cache per controller, battery backed up for minimum 96 hours or cache destages to hard disk in case of power failure. Cache should be mirrored across controllers for high availability.
		Standby power unit should be provided to support both controller cache destaging to disks if cache is not battery backed-up.

	Hard Disks Required	18 Nos. LFF SAS-2 (6 Gb/s) Dual Port Hot Plug 600GB 15K rpm or better Hard Disk Drives and 6 Nos. 200 GB LFF SSD Drives with 6 Gb/s SAS-2 interface or better.	18 Nos. LFF SAS-2 (6 Gb/s) Dual Port Hot Plug 600GB 15K rpm or better Hard Disk Drives and 6 Nos. 200 GB SFF/LFF SSD Drives with 6 Gb/s SAS-2 interface or better.
	RAID Support	0,1,10,5 and 6	0,1,10/01,5 and 6
File Component System	Controller* (*Newly Added Parameter)		Dual Controller
	Memory	6 GB	6 GB per controller
	Host Connectivity	2 Nos. 8 Gb/s FC 2 Nos 1 GbE 2 Nos. 10 GbE	4 Nos 1 GbE 2 Nos. 10 GbE

2(b). SAN Switch (Quantity – 2 Nos.)

Parameters	Original Specification	Revised Specification
Power Supplies	Hot Plug redundant N+1 power supplies	Hot Plug redundant dual power supplies

2(c). Host Bus Adapter (Quantity – 4 Nos.)

Parameters	Original Specification	Revised Specification
Performance	Around 5,00,000 IOPS (±10%) at 8 Gbps	(Parameter Dropped)

4(a) Oracle Database

Parameters	Original Specification	Revised Specification
Scope of Work	The Bidder will install the above mentioned products in co-ordination with the Bidder of the Items in Schedule – I and help in migration of existing database.	The Bidder will install the above mentioned products in co-ordination with the Bidder of the Items in Schedule – I.

5(c) Layer-3 Switches (Quantity – 1 No.)

Parameters	Original Specification	Revised Specification
Manufacturer and Model	Cisco Catalyst 3560 Series Switch with IP Services Adv. L3 Software Image	Cisco Catalyst 3750-X Series Switch with IP Services Adv. L3 Software Image
Part No.	WS-C3560E-12SD-E	WS-C3750X-12S-E

5(d) Layer-2 Switches (Quantity – 2 Nos.)

Parameters	Original Specification	Revised Specification
Manufacturer and Model	Cisco Catalyst 2960S Switch with LAN Base Software	Cisco Catalyst 2960S Switch with LAN Base Software and 2 Ten Gigabit Ethernet SFP+ uplink ports
Items accompanying per switch	<ol style="list-style-type: none"> 1. 1 No. of 3 metre FlexStack stacking cable (CAB-STK-E-3M) 2. 2 Nos. of Cisco 1 Gigabit SFP (1000-Base-SX for LC Connector) Transceivers (GLC-SX-MM) 3. 2 Nos. of Cisco 1 Gigabit SFP (1000-Base-T for RJ-45 Connector) Transceivers (GLC-T). 4. 2 Nos. of 3 metre Fiber OM3 50µ/125µ LC to LC Patch Chord 5. 1 No. of 1 metre Fibre Multimode Duplex LC to SC Patch Chord 	<ol style="list-style-type: none"> 1. 2 Nos. of Cisco 10 Gigabit SFP+ (10G-Base-SR for LC Connector) Transceivers (SFP-10G-SR) 2. 2 Nos. of Cisco 1 Gigabit SFP (1000-Base-SX for LC Connector) Transceivers (GLC-SX-MM) 3. 2 Nos. of Cisco 1 Gigabit SFP (1000-Base-T for RJ-45 Connector) Transceivers (GLC-T). 4. 2 Nos. of 3 metre Fiber OM3 50µ/125µ LC to LC Patch Chord
Total No. of ports	24 Ethernet 10/100/1000 PoE+ ports with 2 Nos. One Gigabit Ethernet SFP ports	24 Ethernet 10/100/1000 PoE+ ports with 2 Nos. 10 Gigabit Ethernet SFP+ ports

5(e) Network Management Software (Quantity – 1No.)

Parameters	Original Specification	Revised Specification
Product and Version	Cisco Prime Infrastructure 1.1 software for Windows	Latest Cisco Prime LMS software for Windows

Section – IV : General Information

Sl. No.	Original Point	Modified Point
6(b).	<p>Strength of local office at Lucknow <u>(in case of Desktop PC support)</u></p> <p>(i) No. of Marketing Personnel</p> <p>(ii) No. of Technical Personnel (Qualification be also mentioned)</p> <p>(iii) No. of Supporting Staff</p>	<p>Strength of local office at Lucknow</p> <p>(i) No. of Marketing Personnel</p> <p>(ii) No. of Technical Personnel (Qualification be also mentioned)</p> <p>(iii) No. of Supporting Staff</p>

Section – V: Technical Bid

Schedule – I: Server, Storage and Backup Items

Part – 2 : Storage and Allied items

2(a). Storage Area Network (Quantity – 1 No.)

Parameters		Specification	
Manufacturer			
Model No.			
Technology			
Block Component System	Storage Protocols Supported		
	SAN features		
	Controller Details	No. of Controllers	
		Processor Details (Mention Manufacturer, Model and Clock Speed)	
		No. of FC ports per Controller mentioning speed	
		No. of FCoE ports per Controller mentioning speed	
		No. of iSCSI ports per Controller mentioning speed	
	Cache Memory per Controller in GB		
	Battery Backup time of Cache in hours		
	Standby Power Details		
	Host Port Speed	FC	
		FCoE	
		iSCSI	
	Host Connectivity Options		
	Enclosure Options	Total No. of Enclosures attachable to the System	
		No. of Drives per enclosure	
		Drive Types Supported	
		Drive Height Supported	
		Maximum Capacity Limitation for Drive	
	No. of HDD Bays Provided and its Details		
Hard Disks Provided (Nos., Type, Form Factor, Capacity, RPM)			
Total No. of Hot Pluggable Drives Support			
Maximum Raw Capacity (in TB)			
RAID Versions Supported			
Hot Spare Support Details			

Virtual Disk Support Details	
Maximum No. of Hosts Supported	
Max LUN Size (in TB)	
Cluster Softwares Supported	
Power Supply Details (Nos. mentioning redundancy and wattage)	
No. of Hot Plug Fans mentioning Redundancy	
Manageability	
Thin Provisioning Details	
High Availability Details	
Security Details	
Remote Replication Details	
Internal Replication Details	
OS Support	

	Database Support		
File Component System	File Systems Supported		
	Controller Details	No. of Controllers	
		Processor Details (Mention Manufacturer, Model and Clock Speed)	
	Memory per Controller		
	Host Connectivity	Nos. of FC ports mentioning speed	
		Nos. of 1 GbE	
		Nos. of 10 GbE	
Event Notification			
Accessories (mention all including those mentioned)			
Warranty			