



Amended Annexure-2
Technical Specification

SUB: Supply, Installation, Configuration, Implementation and Maintenance of 12 No's of Servers with three year warranty and two years AMC.

Ref: GEM/2023/B/3560856 dated 13/06/2023

Note:	
(a)	If the bidder feels that certain features offered are superior to what has been specified by the Bank, it shall be highlighted separately. Information regarding any modification required in the proposed solution to meet the intent of the specifications and state-of-the-art technology shall be provided. However, the Bank reserves the right to adopt the modifications /superior features suggested/ offered.
(b)	The bidder shall provide all other required equipments and/or services, whether or not explicitly mentioned in this RFP, to ensure the intent of specification, completeness, operability, maintainability and upgradability.
(c)	The selected bidder shall own the responsibility to demonstrate that the product offered are as per the specification/performance stipulated in this RFP and as committed by the bidder either at site or in bidder's work site without any extra cost to the Bank.

All points mentioned under are mandatory to comply and non-compliance to any of the point lead to disqualification of the bidder during evaluation.

A. Technical Specification for Servers - Data Node (Nos- 05):

Sl. No.	Particulars	Detailed Configuration	Configuration proposed by the Bidder
1.	Form Factor	Form Factor	2U
2.	Processor	Processor Architecture	64-bit
		Processor Make	Suitable make as per Architecture
		Processor	As per core requirement
		Socket	2
		Cores per socket	24 (total 24, 1 socket empty)
		Cache	As per supported CPU model
		Platform Controller Hub & Main Board	Suitable Chipset and Main board as per Processor Architecture
3.	Memory	RAM Type	DDR4 or higher
		Ram Size	256GB (64GB per module)
		Slot Count	Slot count should be selected to support upgrade capacity of 2TB in future.
		Speed	Best available
		Features	RDIMM
4.	SSD	Types of interface for SSD	SAS
		Total Capacity for sata /SSD	10x8TB SAS HDD 2x 1TB SAS HDD in RAID 1 2x 3.84TB SAS SSD
		Slot Count	16 or higher



		Usable Space	90TB+	
5.	RAID Controller	RAID Battery	Present	
		Cooling	Passive	
		Alarm Buzzer	Not required	
		Storage Health Inspector	Present	
		Features	Suitable controller supporting no. of disks and RAID levels 0,1,5,10	
6.	Network	FC HBA CARD	Dual port 16G FC HBA	
		FC Cables	required	
		Network cards 1 Gbps	Not required	
		Network cards 10 Gbps	Dual port 10GbE	
		Network cards Management port	Dedicated Ethernet port for management service required	
7.	OS & Hypervisor Certification	Hypervisor compatibility	Not required	
		Windows Compatibility	Not required	
		Oracle Linux Compatibility/RHEL compatibility	RHEL license and compatibility required	
8.	Power Supply	Power Supply	Dual hot plug fully redundant 1+1	
9.	BIOS	BIOS	Performance BIOS setting	
10.	Warranty And Support	Warranty And Support	3+2 years	
11.	Port	Port		
12.	Serviceability	Serviceability	3+2 years	
13.	Security	Security		
14.	PCI Slots	PCI Slots	1 minimum PCIE slot for future GPU expansion	
15.	Remote Management	Remote Management	Remote management service required	
16.	Drivers & Accessories	Drivers & Accessories	Not required	
17.	FAN	FAN	Required	
18.	Tape Library	Tape Library	Not required	
19.	Tapes	LTO-8 Tapes	Not required	
			Not required	
20.	Server Rack For placing servers	Server Rack For placing servers	Server Rack required	

B. Technical Specification for Servers -ETL NODE(Nos : 02):

Sl. No.	Particulars		Detailed Configuration	Configuration proposed by the Bidder
1.	Form Factor	Form Factor	2U	
2.	Processor	Processor Architecture	64-bit	





		Processor Make	Suitable make as per Architecture
		Processor	As per core requirement
		Socket	2
		Cores per socket	16 (total 16, 1 socket empty)
		Cache	compatible as per Processor
		Platform Controller Hub & Main Board	Suitable Chipset and Main board as per Processor Architecture
3.	Memory	RAM Type	DDR4 or higher
		Ram Size	128GB(64GB per module)
		Slot Count	Slot count should be selected to support upgrade capacity of 2TB in future.
		Speed	Best available
		Features	RDIMM
4.	SSD	Types of interface for SSD	SAS
		Total Capacity for sata SSD	10x 2.4 TB SAS HDD in RAID 10 2x 1 TB SAS HDD in RAID 1
		Slot Count	16 or higher
		Usable Space	10TB+
5.	RAID Controller	RAID Battery	Present
		Cooling	Passive
		Alarm Buzzer	Not required
		Storage Health Inspector	Present
		Features	Suitable controller supporting no. of disks and RAID levels 0,1,5,10
6.	Network	FC HBA CARD	Dual port 16G FC HBA
		FC Cables	required
		Network cards 1 Gbps	Not required
		Network cards 10 Gbps	Dual port 10GbE
		Network cards Management port	Dedicated Ethernet port for management service required
7.	OS & Hypervisor Certification	Hypervisor compatibility	Not required
		Windows Compatibility	Not required
		Oracle Linux Compatibility/RHEL compatibility	RHEL license and compatibility required
8.	Power Supply	Power Supply	Dual hot plug fully redundant 1+1
9.	BIOS	BIOS	Performance BIOS setting
10.	Warranty And Support	Warranty And Support	3+2 years
11.	Port	Port	
12.	Serviceability	Serviceability	3+2 years
13.	Security	Security	



14.	PCI Slots	PCI Slots	1 minimum PCIE slot for future GPU expansion
15.	Remote Management	Remote Management	Remote management service required
16.	Drivers & Accessories	Drivers & Accessories	Not required
17.	FAN	FAN	Required
18.	Tape Library	Tape Library	Not required
19.	Tapes	LTO-8 Tapes	Not required
			Not required
20.	Server Rack For placing servers	Server Rack For placing servers	Server Rack required

C. Technical Specification for Servers -MASTER NODE (Nos - 02):

Sl. No.	Particulars		Detailed Configuration	Configuration proposed by the Bidder
1.	Form Factor	Form Factor	2U	
2.	Processor	Processor Architecture	64-bit	
		Processor Make	Suitable make as per Architecture	
		Processor	As per core requirement	
		Socket	2	
		Cores per socket	24 (total 24, 1 socket empty)	
		Cache	As per supported CPU model	
		Platform Controller Hub & Main Board	Suitable Chipset and Main board as per Processor Architecture	
3.	Memory	RAM Type	DDR4 or higher	
		Ram Size	256GB(64GB per module)	
		Slot Count	Slot count should be selected to support upgrade capacity of 2TB in future.	
		Speed	Best available	
		Features	RDIMM	
4.	SSD	Types of interface for SSD	SAS	
		Total Capacity for sata SSD	2x 1TB SAS HDD for OS in RAID 1 3x2TB SAS HDD 3x1TB SAS SSD 2x1TB SAS HDD in RAID 1 (metadata) 2x1TB SAS HDD in RAID 0 (Quorum) 2x1TB SAS SSD in RAID 0(zookeeper) 2x1TB SAS SSD (kudo master write& logs)	





		Slot Count	16 or higher	
		Usable Space	20TB+	
5.	RAID Controller	RAID Battery	Present	
		Cooling	Passive	
		Alarm Buzzer	Not required	
		Storage Health Inspector	Present	
		Features	Suitable controller supporting no. of disks and RAID levels 0,1,5,10	
6.	Network	FC HBA CARD	Dual port 16G FC HBA	
		FC Cables	required	
		Network cards 1 Gbps	Not required	
		Network cards 10 Gbps	Dual port 10GbE	
		Network cards Management port	Dedicated Ethernet port for management service required	
7.	OS & Hypervisor Certification	Hypervisor compatibility	Not required	
		Windows Compatibility	Not required	
		Oracle Linux Compatibility/RHEL compatibility	RHEL license and compatibility required	
8.	Power Supply	Power Supply	Dual hot plug fully redundant 1+1	
9.	BIOS	BIOS	Performance BIOS setting	
10.	Warranty And Support	Warranty And Support	3+2 years	
11.	Port	Port		
12.	Serviceability	Serviceability	3+2 years	
13.	Security	Security		
14.	PCI Slots	PCI Slots	1 minimum PCIE slot for future GPU expansion	
15.	Remote Management	Remote Management	Remote management service required	
16.	Drivers & Accessories	Drivers & Accessories	Not required	
17.	FAN	FAN	Required	
18.	Tape Library	Tape Library	Not required	
19.	Tapes	LTO-8 Tapes	Not required	
			Not required	
20.	Server Rack For placing servers	Server Rack For placing servers	Server Rack required	



D. Technical Specification for Servers -UTILITY NODE (Nos - 1):

Sl. No.	Particulars		Detailed Configuration	Configuration proposed by the Bidder
1.	Form Factor	Form Factor	2U	
2.	Processor	Processor Architecture	64-bit	
		Processor Make	Suitable make as per Architecture	
		Processor Socket	As per core requirement	
		Processor Socket	2	
		Cores per socket	24 (total 24, 1 socket empty)	
		Cache	As per supported CPU model	
3.	Memory	Platform Controller Hub & Main Board	Suitable Chipset and Main board as per Processor Architecture	
		RAM Type	DDR4 or higher	
		Ram Size	256GB(64GB per module)	
		Slot Count	Slot count should be selected to support upgrade capacity of 2TB in future.	
		Speed	Best available	
4.	SSD	Features	RDIMM	
		Types of interface for SSD	SAS	
		Total Capacity for sata SSD	2x 1TB SAS HDD in RAID 1 4x 2TB SAS HDD in RAID 10 4x 2TB SAS HDD in RAID 1	
		Slot Count	16 or higher	
5.	RAID Controller	Usable Space	16TB+	
		RAID Battery	Present	
		Cooling	Passive	
		Alarm Buzzer	Not required	
		Storage Health Inspector	Present	
6.	Network	Features	Suitable controller supporting no. of disks and RAID levels 0,1,5,10	
		FC HBA CARD	Dual port 16G FC HBA	
		FC Cables	required	
		Network cards 1 Gbps	Not required	
		Network cards 10 Gbps	Dual port 10GbE	
7.	OS & Hypervisor Certification	Network cards Management port	Dedicated Ethernet port for management service required	
		Hypervisor compatibility	Not required	
		Windows Compatibility	Not required	



		Oracle Linux Compatibility/RHEL compatibility	RHEL license and compatibility required	
8.	Power Supply	Power Supply	Dual hot plug fully redundant 1+1	
9.	BIOS	BIOS	Performance BIOS setting	
10.	Warranty And Support	Warranty And Support	3+2 years	
11.	Port	Port		
12.	Serviceability	Serviceability	3+2 years	
13.	Security	Security		
14.	PCI Slots	PCI Slots	1 minimum PCIE slot for future GPU expansion	
15.	Remote Management	Remote Management	Remote management service required	
16.	Drivers & Accessories	Drivers & Accessories	Not required	
17.	FAN	FAN	Required	
18.	Tape Library	Tape Library	Not required	
19.	Tapes	LTO-8 Tapes	Not required	
			Not required	
20.	Server Rack For placing servers	Server Rack For placing servers	Server Rack required	

E. Technical Specification for Servers -WORKER NODE (Nos - 2):

Sl. No.	Particulars		Detailed Configuration	Configuration proposed by the Bidder
1.	Form Factor	Form Factor	2U	
2.	Processor	Processor Architecture	64-bit	
		Processor Make	Suitable make as per Architecture	
		Processor Socket	As per core requirement	
		Processor Socket	2	
		Cores per socket	16 (total 16, 1 socket empty)	
		Cache	As per supported CPU model	
		Platform Controller Hub & Main Board	Suitable Chipset and Main board as per Processor Architecture	
3.	Memory	RAM Type	compatible as per Processor	
		Ram Size	128GB(64GB per module)	
		Slot Count	Slot count should be selected to support upgrade capacity of 2TB in future.	
		Speed	Best available	
		Features	RDIMM	
4.	SSD	Types of interface for SSD	SAS	



20.	Server Rack For placing servers	Server Rack For placing servers	Server Rack required	
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Declaration: We hereby confirm that the information submitted above is true to the best of our knowledge. We understand that in case any discrepancy is found in the information submitted by us our tender is liable to be rejected.

Date

Signature with seal

Name:

Designation:

