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## KERALA PUBLIC SERVICE COMMISSION

No.RA1-1/50016/2018-KPSC

Thiruvananthapuram,

Dated: 04.12.2021

### E-TENDER NOTICE

Invitation of E-Tender for the supply of Six numbers of Servers and Memory upgradation of two numbers of existing Servers of the Kerala Public Service Commission. E-Tender in one cover system is invited from competent dealers and manufacturers for the supply of the same in accordance with respective specifications as shown in Annexure I of the Tender document.

Sl. No.	Item Details	Quantity (Nos)	Cost of Tender form	EMD
1	Servers	4	6,400/-	50,000/-
2	Servers	2		
3	Memory Upgradation of Servers	2		

Tenders shall be submitted as e-tender through <https://etenders.kerala.gov.in>. Bidders who have enrolled in the above portal with their own digital signature certificate (DSC) can participate in the tender. For obtaining digital signature certificate (DSC) and necessary portal enrollment bidders can visit the above website. E-Tender document and other details can be obtained from the above e-portal.

Tender no.	12/2021//SN
Document download/sale start date	07/12/2021
Bid submission start date	07/12/2021
Document closing date	29/12/2021 - 5.00 pm
Date & Time of opening of tender	31/12/2021 – 2.30 pm
Cost of e-Tender & EMD (Online payment)	Payment as shown in the above table including EMD should be made as a single payment through online.
Dates upto which rates are to remain firm for acceptance	90 days
Performance security	3% of the contract value
Period of supply	within 15 days of supply Order

The bidder desiring to take part in the bid shall log in to <https://etenders.kerala.gov.in/> and then select tender and initiate payment. Bidders will be directed to the online payment gateway page and they shall make payment as directed therein.

The e-tenders submitted by the competent dealer should definitely contain a scanned and signed copy of the declaration of product offered to supply and dealership certificate from the manufacturer.

Tenders will be opened in the online presence of each bidders or their authorized representatives who have logged in at the prescribed time of opening.

If the date fixed for opening happens to be holiday or due to net failure the tenders will be opened in the next working day at the same time.

The price of the e-tender form will be received only through online payment methods stipulated in the website.

**Scanned copy of the agreement (Annexure II) in the prescribed format in Kerala Stamp paper worth Rs.200/- shall be submitted online and original shall be given to the Secretary, Kerala Public Service Commission before opening of e-tender.**

The rates should be quoted in Indian Currency only.

Details with respect to the e-tender and the details of specifications (Annexure I) of the item to be supplied can be obtained from the e-tender website <https://etenders.kerala.gov.in>.

The Secretary, Kerala Public Service Commission, Pattom will scrutinise the tenders received and will take necessary action for the award of contract.

The right of acceptance or rejection of any e-tender in full or in part without assigning any reasons thereof is reserved with the Secretary, Kerala Public Service Commission.

The rules and regulations prescribed for e-tenders by the Government of Kerala, shall be applicable to this e-tender also.

### **Terms and Conditions:**

1. The make, model, year of manufacture etc of the i-Pads shall be clearly mentioned.
2. All charges, taxes, duties and levies should be clearly indicated.
3. The items should be supplied to the office of the Kerala public Service Commission, Pattom, Thiruvananthapuram-4 at the expense of the Tenderer.
4. **The Product should be supplied within 15 days from the date of Purchase Order, otherwise the tender will be cancelled without any prior intimation.**

5. The installation, commission and initial operation to the satisfaction of the KPSC will be the responsibility of the supplier.
6. The payment will be made after completion of supply, installation and commission subject to the certification by our Technical Experts as to the quality and efficiency of the item supplied.
7. In case of under performance during the warranty period, the item should be replaced and period of warranty will recommence from the date of replacement.
8. The successful bidder should remit, 3% of the contract value as performance Security in favor of Secretary, K.P.S.C Thiruvananthapuram. The Performance Security Deposit will be released after the expiry of Warranty Period.
9. Any legal disputes that may arise in relation to the e-tender formalities will be restricted to jurisdiction of Thiruvananthapuram District.

The communications should be addressed to :

The Secretary,  
Kerala Public Service Commission  
Pattom, Thiruvananthapuram  
Kerala-695004

SAJU GEORGE  
SECRETARY,  
KERALA PUBLIC SERVICE COMMISSION

Note:- More details can be had from the office of Additional Secretary, R&A wing, Kerala Public Service Commission, Pattom, Thiruvananthapuram-4.

### ANNEXURE 1

#### Specification of Server (4 Nos)

Sl. No.	Component	Description
1	Processor	Server should be populated with Intel Xeon Gold / AMD EPYC Processor
2	Processor frequency	Minimum 3.1 GHz Base frequency
3	Total no. of Cores Per Server	8
4	Processor Cache	32 MB or higher per processor
5	No. of Sockets	1 or 2
6	Memory slots	16 DDR4 DIMM slots, speed up to 3200 MT/s

7	Memory	64GB RAM (4x16GB) with 3200 Mhz memory speed (RDIMM, 3200 MT/s) or higher shall be populated
8	Memory Property	Should support Advanced ECC memory protection / Advanced Memory device correction.
9	RAID Controller	Integrated (or) Add-On RAID controller 12 Gbps PCIe 3.0 with RAID 1,5,6,10,50 with 6 GB NV cache or higher
10	Disks Supported	Front drive bays: 2.5" Chassis with up to 8 Hot Plug Hard Drives
11	Hard Disks configured	2 x 600GB 15K RPM SAS 12G, 6 x 2.4TB SAS 12G 10K RPM SFF
12	Ethernet Ports	Server should have 2 x 10 GbE and 2 x 1 GbE Base-T
13	Redundant Power Supply	Server should have Platinum rated redundant power supply 500 W or higher.
14	Form Factor	Server should be of 1U with cable management arms and sliding rails
15	Operating Systems Support (OS certified for)	Microsoft Windows Server; Red Hat Enterprise Linux , VMWare
16	Power & temperature	Real-time power meter, graphing, thresholds, alerts & capping with historical power counters. Temperature monitoring & graphing
17	Pre-failure alert	Should provide predictive failure monitoring & proactive alerts of actual or impending component failure for fan, power supply, memory, CPU, RAID, NIC, HDD
18	HTML5 support	HTML5 support for virtual console & virtual media without using Java or ActiveX plugins
19	Embedded Remote Management and firmware security	System remote management should support browser based graphical remote console along with Virtual Power button, remote boot using USB/CD/DVD Drive. It should be capable of offering upgrade of software and patches from a remote client using Media/image/folder. It should support server power capping and historical reporting and should have support for multifactor authentication
		Server should have dedicated 1Gbps remote management port.
		Remote management port should have storage space earmarked to be used as a repository for firmware, drivers and software components. The components can be organized in to install sets and can be used to rollback/patch faulty firmware
		Server should support agentless management using the out-of-band remote management port. 4. The server should support monitoring and recording changes in the server hardware and system configuration. It assists in diagnosing problems and

		delivering rapid resolution when system failures occur
		The server should support monitoring and recording changes in the server hardware and system configuration. It assists in diagnosing problems and delivering rapid resolution when system failures occur
		<ul style="list-style-type: none"> <li>• Automated hardware configuration and Operating System deployment to multiple servers</li> <li>• Zero-touch repository manager and self-updating firmware system</li> <li>• Virtual IO management / stateless computing</li> <li>• Support for Redfish API for simple and secure management of scalable platform hardware</li> <li>• Automated hardware configuration and Operating System deployment to multiple servers</li> <li>• Zero-touch repository manager and self-updating firmware system</li> <li>• Virtual IO management / stateless computing</li> <li>• Support for Redfish API for simple and secure management of scalable platform hardware</li> </ul>
		Should have a cyber resilient architecture for a hardened server design for protection, detection & recovery from cyber attacks
		Should protect against firmware which executes before the OS boots
		<p>Should provide effective protection, reliable detection &amp; rapid recovery using:</p> <ul style="list-style-type: none"> <li>- Silicon-based Hardware Root of Trust</li> <li>- Signed firmware updates</li> <li>- Secure default passwords</li> <li>- Configuration and firmware drift detection</li> <li>- Persistent event logging including user activity</li> <li>- Secure alerting</li> <li>- Automatic BIOS recovery</li> <li>- Rapid OS recovery</li> <li>- System erase</li> </ul> <p>Should provide effective protection, reliable detection &amp; rapid recovery using:</p> <ul style="list-style-type: none"> <li>- Silicon-based Hardware Root of Trust</li> <li>- Signed firmware updates</li> <li>- Secure default passwords</li> <li>- Configuration and firmware drift detection</li> <li>- Persistent event logging including user activity</li> <li>- Secure alerting</li> <li>- Automatic BIOS recovery</li> <li>- Rapid OS recovery</li> <li>- System erase</li> </ul>

		Configuration upgrades should be only with cryptographically signed firmware and software
		Should provide system lockdown feature to prevent change (or “drift”) in system firmware image(s) & prevent malicious modification of server firmware
20	Intrusion alert	Intrusion alert in case chassis being opened
21	OEM Criteria	The OEM for the proposed server must be Top 2 Leaders by Market Share revenue in IDC report for x86 Server Business, in latest Published Report
22	Warranty	5 years onsite OEM comprehensive warranty with 24x7 resolution SLA
23	MAF	Manufacturer Authorization Required

### **Specification of Server (2 No.s)**

<b>Sl. No.</b>	<b>Component</b>	<b>Description</b>
1	Processor	Server should be populated with Intel Xeon Gold / AMD EPYC Processor
2	Processor frequency	Minimum 2.9 GHz Base frequency
3	Total no. of Cores Per Server	12
4	Processor Cache	64 MB or higher per processor
5	No. of Sockets	1 or 2
6	Memory slots	16 DDR4 DIMM slots, speed up to 3200 MT/s
7	Memory	768GB RAM (12 x 64GB) with 3200 Mhz memory speed (RDIMM, 3200 MT/s) or higher shall be populated
8	Memory Property	Should support Advanced ECC memory protection / Advanced Memory device correction.
9	RAID Controller	Integrated (or) Add-On RAID controller 12 Gbps PCIe 3.0 with RAID 1,5,6,10,50 with 6 GB NV cache or higher.
10	Disks Supported	Front drive bays: 2.5" Chassis with up to 24 Hot Plug Hard Drives
11	Hard Disks configured	2 x 600GB 15K RPM SAS 12G, 8 x 2.4TB SAS 12G 10K RPM SFF
12	Ethernet Ports	Server should have 2 x 10 GbE and 2 x 1 GbE Base-T
13	Redundant Power Supply	Server should have Platinum rated redundant power supply 1600W or higher.
14	Form Factor	Server should be of 2U or lesser with cable management arms and sliding rails

15	Operating Systems Support (OS certified for)	Microsoft Windows Server; Red Hat Enterprise Linux , VMWare
16	Power & temperature	Real-time power meter, graphing, thresholds, alerts & capping with historical power counters. Temperature monitoring & graphing
17	Pre-failure alert	Should provide predictive failure monitoring & proactive alerts of actual or impending component failure for fan, power supply, memory, CPU, RAID, NIC, HDD
18	HTML5 support	HTML5 support for virtual console & virtual media without using Java or ActiveX plugins
19	Embedded Remote Management and firmware security	System remote management should support browser based graphical remote console along with Virtual Power button, remote boot using USB/CD/DVD Drive. It should be capable of offering upgrade of software and patches from a remote client using Media/image/folder. It should support server power capping and historical reporting and should have support for multifactor authentication
		Server should have dedicated 1Gbps remote management port.
		Remote management port should have storage space earmarked to be used as a repository for firmware, drivers and software components. The components can be organized in to install sets and can be used to rollback/patch faulty firmware
		Server should support agentless management using the out-of-band remote management port. 4. The server should support monitoring and recording changes in the server hardware and system configuration. It assists in diagnosing problems and delivering rapid resolution when system failures occur
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		<ul style="list-style-type: none"> <li>• Automated hardware configuration and Operating System deployment to multiple servers</li> <li>• Zero-touch repository manager and self-updating firmware system</li> <li>• Virtual IO management / stateless computing</li> <li>• Support for Redfish API for simple and secure management of scalable platform hardware</li> <li>• Automated hardware configuration and Operating System deployment to multiple servers</li> <li>• Zero-touch repository manager and self-updating firmware system</li> <li>• Virtual IO management / stateless computing</li> <li>• Support for Redfish API for simple and secure management of scalable platform hardware</li> </ul>
		Should have a cyber resilient architecture for a hardened server design for protection, detection & recovery from cyber attacks
		Should protect against firmware which executes before the OS boots
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		<p>detection</p> <ul style="list-style-type: none"> <li>- Persistent event logging including user activity</li> <li>- Secure alerting</li> <li>- Automatic BIOS recovery</li> <li>- Rapid OS recovery</li> <li>- System erase</li> </ul>
		Configuration upgrades should be only with cryptographically signed firmware and software
		Should provide system lockdown feature to prevent change (or “drift”) in system firmware image(s) & prevent malicious modification of server firmware
20	Intrusion alert	Intrusion alert in case chassis being opened
21	OEM Criteria	The OEM for the proposed server must be Top 2 Leaders by Market Share revenue in IDC report for x86 Server Business, in latest Published Report
22	Warranty	5 years onsite comprehensive warranty (OEM) with 24x7 resolution SLA
23	MAF	Manufacturer Authorization Required

### Memory Upgradation (Servers - 2 No.s)

Model	Dell Power Edge R440
Service Tag	DBN0L93, FBN0L93
Memory Specification	16GB RDIMM, 3200MT/s, Dual Rank
Quantity Required Per Server	6 Nos
Total Quantity	12 Nos