

Website: [www.keralapsc.gov.in](http://www.keralapsc.gov.in)  
e-mail: [kpsc@keralapsc.org](mailto:kpsc@keralapsc.org)



Phone : 0471 - 2443068  
F A X : 0471 - 2553485

## KERALA PUBLIC SERVICE COMMISSION

File No. R&A I (2) 12147/13/GW

Thiruvananthapuram,  
Dated : 02.08.2013.

### TENDER NOTICE

Sealed Tenders are invited for the supply and installation including Cabling and connections of following items as per the specification Schedule.

Sl.No.	Item	Quantity
1.	Fire wall	1
2.	Rack 19"42U 600W/1200D	1
3.	5 KVA Rack mountable UPS	2
4.	24 Port L3 managed switch	1

The tender should be superscribed "**Tender No. 03/2013, for the supply of Firewall, Server Rack, UPS and L3 managed switch**" and addressed to **The Secretary, Kerala Public Service Commission, Pattom P O, Thiruvananthapuram, Kerala, PIN 695 004**. Tenders will be received upto **1 p.m.** on **16/08/2013** and will be opened at **3.00 p.m.** on **16/08/2013** in the presence of the tenderers or their authorized representatives who may be present at that time. Late tenders will not be accepted.

Intending tenderers may send application to **the Secretary, Kerala Public Service Commission** and obtain the requisite tender forms. Applications for the tender form should be accompanied by a Cash remittance/M.O./D.D. (favouring Secretary, Kerala Public Service Commission payable at Thiruvananthapuram) of **Rs. 1359/- (Rupees One Thousand Three Hundred and Fifty Nine only)** including VAT, which is the price fixed for a tender form and is not refundable under any circumstance. The tender forms are not transferable. Duplicate tender forms, if required will be issued at a cost of **Rs. 732/- (Rupees Seven Hundred and Thirty Two only) per** copy. The Sale of tender forms will be closed at **12 Noon** on **16/08/2013**. Cheques, Postal Orders, Postal Stamps etc. will not be accepted towards the cost of the forms nor will the forms be sent by VPP. Kerala Stamp Paper will be supplied to the intending tenderers outside Kerala for execution of agreement along with the tender in case they request for the same and remit Rs. **130/-** separately ie. Rs. **100/-** for Stamp Paper and **Rs. 30/-** towards incidental expenses. Money Order alone will be accepted for this purpose.

**MARYKUTTY ANTONY,  
CONTROLLER OF EXAMINATIONS,  
SECRETARY IN CHARGE,  
KERALA PUBLIC SERVICE COMMISSION.**

## SPECIFICATION SCHEDULE

### ITEM No.1

<b>Firewall (make : <a href="#">Cisco/Juniper/Fortinet/Checkpoint</a>)</b>
<b>Specification</b>
<b>General Requirements</b>
Firewall should have minimum 16 x 10/100/1000BaseT interfaces (2 WAN, 1 DMZ, 1 HA & 12 configurable LAN ports). Should Support two Gigabit SFP Slots
Device should be having minimum 16 GB on box storage to store log files
The Firewall should support a Firewall throughput of minimum 2.5 Gbps.VPN throughput should be minimum 400 Mbps. Should support minimum 1000 VPN tunnels. Should support 16,00,000 Concurrent Sessions
Firewall should be having minimum 900 Mbps IPS throughput and 600 Mbps Flow based Gateway antivirus throughput
Firewall should support up to 25 WLAN access points (Firewall should be working as the controller for the access points)
Firewall should have solution to support 3G USB modems based on GSM and CDMA technologies and should also support newer 4G LTE modems
Firewall should be having EAL 4+ Common Criteria Assurance Level Certification, ICASA Lab certification
IPS and AntiVirus should be having ICASA LAB Certification.
OEM should be having recommended rating from NSS Lab's 2012/2013 Firewall, IPS, Next Generation Firewall testing with minimum 90% Firewall policy protection/ Security effectiveness
Device should support Firewall, VPN, IPS, Application controller, Antivirus, Web filtering, traffic shaping, Data leakage prevention functions from day one
<b>Firewall &amp; Security Features</b>
Should support AAA using RADIUS, TACACS, LDAP, Native Windows Active Directory and Novell eDirectory Integration
Should have Stateful Firewalling with support for minimum 40 zones
Should support Network attack detection and support DDoS attack prevention
Should support Tunnels (GRE, IPSec)
Should support MD5, SHA1, SHA256, SHA384 & SHA512 authentication & DES, 3DES, AES128, 192, and 256 IPSec VPN encryption methods
Should be tightly integrated with an IPS solution so that the IPS can subscribe to the results of the application identification / contextualization to determine the appropriate protocol decoding and attack objects to use for the incoming traffic
Device should be able to detect Virus and Attacks in IPV6 traffic also
Firewall should detect client device Mac address, device type(such as windows device, Android device, Iphone, Ipad, blackberry, etc) and host name by analyzing the traffic.
Firewall should be able to allow or deny traffic, control the bandwidth based on device type (such as windows device, Android device, Iphone, Ipad, blackberry, etc)
Solution should include an Intrusion Prevention System with support for Protocol anomaly detection, Stateful protocol signatures, Intrusion prevention system (IPS) attack pattern obfuscation, User role-based policies
<b>L3 / L2 Feature Support</b>
Firewall should support IPv4 & IPv6 Routing
NAT and Transparent Mode(Bridge mode) should be IPv6 ready.
Should support multicast
Should support 802.1q VLAN with support for minimum 1000 VLAN's and support 802.1x and IGMP Snooping
Should provide NAT functionality, including PAT. Should support NAT 66, NAT 64 and DNS 64
Should have an internal DHCP server. Should support DHCP6 also
<b>Management and Troubleshooting</b>
Should support SNMPv2 and SNMPv3
Should have monitoring features with support for Sessions, packets, Detected attacks, bandwidth usage, Top users etc

Should support 802.1q VLAN with support for minimum 64 VLAN's and support 802.1x, LLDP, 802.1ad (Q-in-Q) and IGMP Snooping
NAT Support, Encapsulation Support
Should have an internal DHCP server
<b>Management and Troubleshooting</b>
Should support SNMPv2 and SNMPv3
Should have SLA monitoring features with support for Sessions, packets & bandwidth usage
<b>Warranty</b>
3 years warranty + 2 years additional warranty

## ITEM No.2

<b>Server Rack</b>
<b>Specification</b>
<b>RACK 19" 42U 600/1200D</b>
Manufacturer Should conform to DIN 41494 & IEC 60950 /ASTM standards
42U Ultra Rigid Enhanced Rack Frame/600X1200/Steel profile. The 42U racks Height maximum height of 2100mm
The Rack shall comply minimum of IP 20 rating for protection against touch, ingress of foreign bodies, and ingress of water.
The manufacturer shall offer Optional Air seal Kit to seal all gaps to prevent recirculation of hot air.
The Rack shall have 4 No Adjustable, 19" verticals with Punched 10mm Square Hole and Universal 12.7mm-15.875mm-15.875mm alternating hole pattern offers greater mounting flexibility, with Numbered U positions
All sheet metal parts shall be powder coated meeting ASTM Standard.
The Products manufactured by company will carry warranty for 3 year from date of invoice the Warranty
Racks should have Locks on both front and back Door with Common Key
Rack should have back Door Blowers (800 to 1950 CFM)
Security - Grounding and Bonding accessories pre-installed by the manufacturer. (Certifications, Environmental and Safety Requirements-Manufacturer must certify products are RoHS Compliance/ISO 9000 certified company/UL Listed/IP 20 rating for protection)
<b>HARDWARE-Mounting Hardware-CR</b>
STEEL FRONT Convex Perforated Door/42/600 & Back Perforated Door/42/600/Dual
DOOR STEEL, Side Panels/1200/42U/Dual/Vented
Fan Roof Blower Module/400CFM
Fan -Back Door with Blower Module/800CFM/Diverter
Universal Rack Ground Kit
HEAVY DUTY EQUIPMENT SHELF 1000
BRUSHES FOR CABLE PORTS 4 Pieces
Front Air seal Kit/42/600/Type1
Universal Cable Basket/42U/150/Loops-2 Nos
Blank Panel/1U-10 Nos
Blank Panel/2U- 10 Nos
PDU -12 X Indian Round Pin 5/15A, Recommended IEC30932A 2P +E), 16A MCB X 2 Circuits- PDU Rating 7.3KVA - 2 Nos
Levellers OR Plinth/600x1200/50 MM Height- 1 Nos
8-port Combo KVM, 1-user, 8*1.8m cables
Industrial LCD KVM Console
17" LCD Panel, keyboard, touchpad, 1U rack mount form factor
3 year warranty

### ITEM No.3

<b>5 kVA Rack Mountable UPS</b>		
<b>Specification</b>		
Power Rating	5 kVA / 4.5 kW	
Input	Nominal Voltage	200/208/220/230/240 Vac (Single Phase)
	Voltage Range	100 - 300 Vac
	Power Factor	>0.99 ( Full Load)
	Frequency	40-70 Hz
Output	Voltage	200/208/220/230( Default) / 240 Vac (Single Phase)
	Harmonic Distortion	< 2% (Linear Load)
	Voltage Regulation	± 1 % ( Static)
	Frequency	50 or 60 ± 0.05 Hz
	Overload Capacity	106-110 % : 10 Minutes.111-125 % : 5 Minutes,126-150% : 30 Seconds
Battery	Nominal Voltage	192VDC
	<b>Backup</b>	<b>2 hour back up</b> with 16 No.s of 12V, 65 AH SMF Batteries
Interface	Standard	RS 232 x 1, SNMP Slot x 1 Smart Slot x 1, Parallel Port x 1
Conformance	Safety & EMC	CE,TUV,EN62040-1:CISPR 22 Class A
Other Features	Parallel Redundancy	1+1
	Remote Control	REPO : Remote On / Off
	Common Battery Installation	Yes
Efficiency	AC-AC	92 % (Full Load)
	ECO Mode	96 % (Full Load)
Environment	Operating Temperature	0-40° C
	Relative humidity	0-95 % (non-condensing)
	Audible Noise	54dBA
Waranty		3 year waranty

Bidder has to quote for total price inclusive of supply and installation of UPS

### ITEM No.4

<b>L3 Managed Switch (make :Cisco/HP/Juniper)</b>	
<b>Specification</b>	
<b>Architecture</b>	
Shall be 19" Rack Mountable with dual, hot-swappable power supplies	
16 x Gigabit SFP Slots for 100Mb/1G Transceivers,	
8 RJ-45 autosensing 10/100/1000 ports	
The switch shall have two expansion slots to support up to four 10G Ports additionally	
256 MB SDRAM, 32 MB flash	
Shall have switching capacity of 144 Gbps	

Shall have up to 107 million pps switching throughput
<b>Resiliency</b>
Shall have the capability to extend the control plane across multiple active switches making it a virtual switching fabric, enabling interconnected switches to perform as single Layer-2 switch and Layer-3 router
Shall support virtual switching fabric creation across nine switches using 10G Ethernet Links
The modules/cables to create virtual switching fabric shall be provided
IEEE 802.1D Spanning Tree Protocol, IEEE 802.1w Rapid Spanning Tree Protocol and IEEE 802.1s Multiple Spanning Tree Protocol
IEEE 802.3ad Link Aggregation Control Protocol (LACP)
Ring protocol support to provide sub-100 ms recovery for ring Ethernet-based topology
Virtual Router Redundancy Protocol (VRRP) to allow a group of routers to dynamically back each other up to create highly available routed environments
Graceful restart for OSPF, IS-IS and BGP protocols
Bidirectional Forwarding Detection (BFD) for OSPF, IS-IS and BGP protocols
<b>Layer 2 Features</b>
Shall support up to 4,000 port or IEEE 802.1Q-based VLANs
Shall support GARP VLAN Registration Protocol or equivalent feature to allow automatic learning and dynamic assignment of VLANs
Shall have the capability to monitor link connectivity and shut down ports at both ends if uni-directional traffic is detected, preventing loops
Shall support IEEE 802.1ad QinQ and Selective QinQ to increase the scalability of an Ethernet network by providing a hierarchical structure
Shall support Jumbo frames on GbE and 10-GbE ports
Internet Group Management Protocol (IGMP)
Multicast Listener Discovery (MLD) snooping
IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
Multicast VLAN to allow multiple VLANs to receive the same IPv4 or IPv6 multicast traffic
<b>Layer 3 Features (any additional licenses required shall be included)</b>
Static Routing for IPv4 and IPv6, RIP for IPv4 (RIPv1/v2) and IPv6 (RIPng)
OSPF for IPv4 (OSPFv2) and IPv6 (OSPFv3), IS-IS for IPv4 and IPv6 (IS-ISv6)
Border Gateway Protocol 4 with support for IPv6 addressing, Policy-based routing
Unicast Reverse Path Forwarding (uRPF)
IPv6 tunneling to allow IPv6 packets to traverse IPv4-only networks by encapsulating the IPv6 packet into a standard IPv4 packet
Dynamic Host Configuration Protocol (DHCP) client, Relay and server
PIM Dense Mode (PIM-DM), Sparse Mode (PIM-SM), and Source-Specific Mode (PIM-SSM) for IPv4 and IPv6 multicast applications
<b>QoS and Security Features</b>
Access Control Lists for both IPv4 and IPv6 for filtering traffic to prevent unauthorized users from accessing the network
Port-based rate limiting and access control list (ACL) based rate limiting
Congestion avoidance using Weighted Random Early Detection (WRED)
Powerful QoS feature supporting strict priority (SP) queuing, weighted round robin (WRR), weighted fair queuing (WFQ), and weighted random early discard (WRED)
IEEE 802.1x to provide port-based user authentication with multiple 802.1x authentication sessions per port
Media access control (MAC) authentication to provide simple authentication based on a user's MAC address
Dynamic Host Configuration Protocol (DHCP) snooping to prevent unauthorized DHCP servers
Port security and port isolation
<b>Warranty and Support</b>
Lifetime warranty with advance replacement and next-business-day delivery directly from OEM

## **TENDER SCHEDULE**

Superscription	:	Tender No . 03/2013 “For the supply of Firewall, Server Rack, UPS and L3 managed switch”.
Last Date and Time of receipt of Tender:	:	1 pm on 16/08/2013.
Date and Time of opening of Tender	:	3 pm on 16/08/2013.
Date up to which the rates are to be firm:	:	16/11/2013
Price of Tender Form	:	Rs. 1359/- (Including VAT)
Price of Duplicate Copy	:	Rs. 732/- (Including VAT)
Closing Date for the sale of Tender forms :	:	12 pm 16/08//2013.
Address of Officer from whom Tender forms are to be obtained and to whom Tenders are to be sent	:	Secretary, Kerala Public- Service Commission, Thulasi- Hill Pattom Palace po, TVPM 695 004.
Name and Designation of the Controlling Officer	:	P.C. Binoy, Secretary, Kerala Public Service - Commission, Thulasi Hill Pattom Palace PO, TVPM 695 004.

### **Terms & Conditions:**

1. Warranty:- As mentioned in the specifications.
2. The items should be installed at the KPSC Head Office data centre with out any additional charges within 5 (five) days from the date of the Supply Order.
3. Initial Operation to the satisfaction of Kerala Public Service Commission will be the responsibility of the supplier.
4. Incase of under performance of the item during the warranty period the firm should replace the item immediately . If the item had to be replaced for under performance during the Warranty period, the period of warranty will recommence from the date of replacement.
5. The payment will be made after supply and certification by our Technical experts.
6. The Security Deposit will be released only after the expiry of the warranty period.
7. Product training to be given to PSC Officers and Technicians.
8. 24x7 Support as offered by agency.

9. In case of failure to supply the item in accordance with the conditions mentioned in the invoice and the purchase order, the Commission shall have the power and authority to recover from you any loss for damage caused to the Commission.
10. The Make, Model, Year of Manufacture etc. of the item quoted should be clearly mentioned.
11. All charges, taxes, duties and levies should be clearly indicated.
12. Dealership certificate from the manufacturer should be produced along with the tender.

### **OTHER DETAILS**

1. The Tender should be superscribed "Tender No. 03/2013 for the supply of Firewall, Server Rack, UPS and L3 managed switch" addressed to The Secretary, Kerala Public Service Commission, Thulasi Hills, Pattom Palace Po, Thiruvananthapuram -695004
2. Last Date & Time of receipt of Tender Forms:- 1 Pm on 16/08/2013
3. Late Tenders will not be accepted.
4. Every Tenderer should send along with his tender an Earnest Money Deposit (EMD) equivalent to 1% of the total amount quoted by the Tenderer, and an agreement executed in the Kerala Stamp Paper worth Rs.100/- the details of which are available in the Tender Forms itself by a crossed Demand Draft payable at Thiruvananthapuram drawn in favour of Secretary, Kerala Public Service Commission, Pattom Palace PO, Thiruvananthapuram-695004.
5. The EMD of the unsuccessful Tenderers will be returned as soon as possible after the tender is settled.
6. The EMD of the successful Tenderers will be adjusted towards the Security Deposit.
7. Security Deposit of 5% of the purchase value should be deposited with by way of DD payable at Thiruvananthapuram drawn in the name of the Secretary, Kerala Public Service Commission, Pattom Palace Po, Thiruvananthapuram- 695004. The Security Deposit will be returned after satisfactory fulfillment of the contract.
8. The Tenders will be opened at 3 pm on 16/08/2013 in the presence of such of the Tenders or their authorized representatives as may be present at that time.
9. The right to reject any tender in full or in part and receipt of last date without assigning any reasons there of is reserved with the Purchasing Officer.

**MARYKUTTY ANTONY,  
CONTROLLER OF EXAMINATIONS,  
SECRETARY IN CHARGE,  
KERALA PUBLIC SERVICE COMMISSION.**

**Note:-** More details can be obtained from the office of Joint Secretary, R&A Wing, Kerala Public Service Commission or visit [www.keralapsc.gov.in](http://www.keralapsc.gov.in).

Tender No. 3/2013

Website: [www.keralapsc.gov.in](http://www.keralapsc.gov.in)  
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## KERALA PUBLIC SERVICE COMMISSION

File No. R&A I (2)12147/13/GW

Thiruvananthapuram,  
Dated : 02.08.2013.

### SHORT TENDER NOTICE

Department : Kerala Public Service Commission  
Tender No. : 3/2013  
Purpose of Tender : Supply and installation of Fire wall, Server Rack, 5KVA Rack mountable UPS and L3 managed switch at Kerala Public Service Commission Head Office.  
Cost of Form : Rs. 1359/-  
Earnest Money Deposit : 1% of the quoted amount  
Last date of receipt of Tenders : 1 pm on 16/08/2013.  
Name and address of the office where details can be obtained : Joint Secretary, R & A Wing, Kerala- Public Service Commission, Pattom P.O, Thiruvananthapuram – 4  
Phone 0471-2546202.

**MARYKUTTY ANTONY,  
CONTROLLER OF EXAMINATIONS,  
SECRETARY IN CHARGE,  
KERALA PUBLIC SERVICE COMMISSION.**

Note:- For more details visit [www.keralapsc.gov.in](http://www.keralapsc.gov.in).



Tender No.3/2013

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## KERALA PUBLIC SERVICE COMMISSION

File No. R&A I (2) 1214713/GW

Thiruvananthapuram,  
Dated : 02.08.2013.

### WINDOW ADVERTISEMENT

Purpose of Tender : Supply and installation of Fire wall, Server Rack, 5KVA Rack mountable UPS and L3 managed switch at Kerala Public Service Commission Head Office.

Cost of Tender Form : Rs. 1359/-

Earnest Money Deposit : 1% of the quoted amount

Last Date and Time of sale of Tender Forms : 12 noon on 16/08/2013.

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