भारतीय प्रौद्योगिकी संस्थान कानपुर
INDIAN INSTITUTE OF TECHNOLOGY KANPUR
संगणक केन्द्र
COMPUTER CENTRE

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CC/IITK/09/ 1826
September 15, 2014

Sealed quotations are invited for the following items:

Sr. No.	Item Description	Qty
1	**Server Load Balancer as per following specification:** 1. Load Balancer should be able to handle 6 Gbps of internet link throughput for proxy load balancing. 2. Total traffic capacity required for load balancing proxy traffic 9 Gbps. 3. Load balancer should be able to handle 4,00,000 concurrent active TCP connections, HTTP request per second sizing should be 7 request per second on each TCP connection i.e. 28,00,000 HTTP request per second capability. 4. Load balancer should have minimum 4X1G copper ports and 4 X10G SFP+ optical ports, 2 10G ports populated with LR module. 5. Load balancer should be able to do internet proxy server load balancing and health monitoring of the proxy services to ensure that user request is served by available proxy server. 6. Should be able to do health monitoring of the corresponding internet link of the proxy server to accurately understand the proxy availability to serve user requests and should be able to bind both the internet link monitor and the proxy health monitor. 7. Proxy load balancer should be able to do connection multiplexing, URL hash based load balancing and HTTP request multiplexing to optimize proxy server utilization. 8. Load balancer sizing should be done at maximum 40% CPU and 40% RAM utilization with the above requirements. 9. Should be configured and installed in HA mode. **Make: Citrix/ F5**	2
2	**Server Load Balancer as per following specification:** 1. Load balancer should be able to provide intelligent DNS based load balancing function for front end machines of High Performance Computation service. 2. Should be able to monitor the HPC services by scriptable perl and shell based custom health monitors. 3. Should support external monitor configuration where a predefined health monitor script is called for execution on the backend server. The response of the script executed on the servers is compared with predefined values to decide if the system is up or down. This script is external to the system configuration file. 4. Scripted and external monitors should support the capability to execute commands over network communication protocol like TCP. 5. System external monitors should use commands to build TCP and UDP sockets for sending and receiving health monitor messages.	2

	6. Scripted health monitors and external script should pass variables to the indicated service of hostnames. Variables can contain static values, basic regex expressions, or even expressions that contain other variables. 7. Scripted monitor should use pre-defined usernames and passwords for authentication before health monitor can send / execute commands/scripts. 8. External monitors should be able to use standard scripting languages such as perl and shell. 9. Should be able to redirect user to available server IP address by DNS resolution in case any system in unavailable based on port checks as well as health monitors' results. 10. Should be able to correlate the service monitoring between systems to understand service availability to load balance. The service being monitored can depend on other services of the server being healthy. 11. Should be able to maintain user IP DNS persistence to ensure that if user does DNS query again in existing session the user gets the same IP address to maintain persistence. 12. Should provide minimum 4Gbps throughput. 13. Load balancer must have minimum 4X1G copper and 2X10G optical ports. 14. Should be able to handle minimum 300000 DNS response per second. 15. Should be configured and installed in HA mode. **Make: Citrix/ F5**	
3	**Optional Item:** Additional two years warranty beyond the original warranty period of three years.	

Terms & Conditions:
1. All quotations must reach undersigned by September 29, 2014, 5 P.M.
2. Quotation must be valid till 30/12/2014.
3. Quotations shall be submitted in two parts.
   - Part-I (Technical) should contain all the technical details cum specifications, make and model of the offered product. Technical compliance of the above specification should be clearly specified. It should contain un-priced bid along with terms & conditions, warranty, taxes etc. This envelope should be marked as "Technical Bid".
   - Part-II (Financial) The commercial bid of the above items should be in another sealed envelope marked as "Commercial Bid". It should contain commercial terms & conditions.
4. The vendor should have valid authorization for this tender from the OEM Company.
5. Warranty: 3 year warranty with NBD Advance Shipment.
6. Please quote giving unit price.
7. Delivery period will be 8 weeks.
8. Installation period: 2 weeks from the date of supply of equipment.
9. IIT Kanpur is exempted from excise duty.
10. IIT Kanpur is exempted for partial custom duty (CD applicable to IIT Kanpur is 5.15%).
11. Please clearly mention the tax rate (like VAT etc.), if charged extra.
12. Training on the entire solution at user premise should be provided.

(Ashish Dutta)