Indian Institute of Science (IISc), Bangalore - 560012
Supercomputer Education and Research Centre (SERC)
IISc

<u>Corrigendum and Response to Queries</u>
with reference to

Supply and Installation of Networking Equipment for a Data Center in SERC
[Global Tender]

Tender No.: IISc/Purchase/SERC/2024/NetworkDataCenter/2
Tender Date: January 16, 2025

Corrigendum
Corrigendum Date: January 28, 2025

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Corrigendum and Responses to Queries

Corrigendum items are marked in BLUE font in the below table.

SNo	Tender Reference	Query from Vendor	Response
1	The switch must have 48 x 1/10GBaseT ports plus 6 x 40/100G QSFP28 ports with support breakout to provide additional 16 number of 10/25/50G interfaces.	50G is not used nowadays.	Changed to “10/25G interfaces”
2	The switch must have total throughput of 2.16 Tbps and latency packet forwarding less than 3 Microseconds	Change to 8 Microseconds	Due to this switch being copper ports the latency extended to 3 Microseconds considering the criticality in our data centre. The 3 Microseconds requirement specified in the tender is retained.
3	Routing Protocols: OSPFv2 with multiple instances, OSPFv3, BGP, MP-BGP, IS-IS, and RIPv2	When OSPF is used why is ISIS required as both are link state routing protocols and ISIS is an old routing protocol which is not used nowadays.	The IS-IS requirement is removed/relaxed from the tender.
4	Graceful restart for BGP,OSPF v2 and v3 and ISIS	Corrigendum	The ISIS requirement is removed/relaxed from the tender.

5	must have support for symmetric and asymmetric IRB	Our Switch supports asymmetric IRB. Can this be changed	It is preferred to have symmetric IRB in the switch, although switch with only asymmetric IRB feature is acceptable. In case of 4.5% or less margin between L1 and L2 in terms of costs, the bid having the symmetric IRB feature in the switch will be accepted as the winning bid.
6	IGMP v2/v3,PIM-SM / PIM-SSM, Anycast RP (RFC 4610), VRF Support for IP Multicast, Multicast Source Discovery Protocol (MSDP)and IP Multicast Multipath.	Request for relaxing Multicast Multipath	It is preferred to have solution with Multicast Multipath, although solution without this feature is acceptable. In case of 4.5% or less margin between L1 and L2 in terms of costs, the bid having the solution with Multicast Multipath will be accepted as the winning bid.
7	maintenance mode/ Graceful insertion and removal (GIR) to isolate device from the network in order to perform debugging or an upgrade while gracefully steering traffic to peer nodes.	Request for relaxing maintenance mode	It is preferred to have solution with maintenance mode, although solution without this feature is acceptable. In case of 4.5% or less margin between L1 and L2 in terms of costs, the bid having the solution with maintenance mode will be accepted as the winning bid.
8	secure Zero touch provisioning with options to provision Certificates artifacts on the device when it boots.	This is proprietary to a particular vendor	We have verified that this not proprietary to a particular vendor. It is preferred to have solution with this feature, although solution without this feature is acceptable. In case of 4.5% or less margin between L1 and L2 in terms of costs, the bid having the solution with this feature will be accepted as the winning bid.
9	telnet, industry standard hierarchical CLI, SSHv2, HTTPS, SCP, SFTP, CLI task scheduler and configuration session.	Request to relax SFTP requirement	The SFTP requirement is removed/relaxed from the tender.
10	NTP and IEEE 1588 PTP (Transparent Clock and Boundary Clock)	Request to relax Boundary Clock requirement	It is preferred to have solution with Boundary Clock, although solution without this feature is acceptable. In case of 4.5% or less margin

			between L1 and L2 in terms of costs, the bid having the solution with Boundary Clock will be accepted as the winning bid.
11	The switch must support multi OEM hypervisor environment and should be able to sense movement of VM and configure network automatically	Request to relax VM movement requirement	It is preferred to have solution with VM movement, although solution without this feature is acceptable. In case of 4.5% or less margin between L1 and L2 in terms of costs, the bid having the solution with VM movement will be accepted as the winning bid.
12	The switch must have OpenStack Neutron for ML2 integration with EVPN VXLAN control plane support.	This is proprietary to a particular vendor.	We have verified that this not proprietary to a particular vendor. See (https://docs.openstack.org/networking-generic-switch/latest/supported-devices.html) It is preferred to have solution with this feature, although solution without this feature is acceptable. In case of 4.5% or less margin between L1 and L2 in terms of costs, the bid having the solution with this feature will be accepted as the winning bid.
13	The switch must support advanced mirroring features: Mirror to CPU, ACL filters and truncation on Mirror sessions, and tunneling of mirror packets to remote servers.	Request to relax truncation on Mirror sessions requirement.	It is preferred to have solution with this feature, although solution without this feature is acceptable. In case of 4.5% or less margin between L1 and L2 in terms of costs, the bid having the solution with this feature will be accepted as the winning bid.
14	The switch must support measurement of the two-way metrics such as delay, jitter, packet loss rate between two network elements using Two-Way Active	Similar protocol is supported. Can an equivalent solution be provided.	Yes. An equivalent solution with similar protocol can be provided.

	Measurement Protocol (TWAMP) as per RFC 5357		
15	should have programmability and automation support with on board python, bash and docker containers.	Our solution supports only python and not the others. Our solution Supports programmability and automation with other tools such as Ansible also.	Except for support for python, other requirements are relaxed/removed from the tender.
16	IEEE 802.1Qaz DCBX (Data Center Bridge Exchange), 802.1Qbb PFC (Priority-based Flow Control) and Explicit Congestion Notification (ECN)	Yes to 802.1Qbb and no to everythig else.	This feature is needed for data center switches. The 802.1Qbb requirement specified in the tender is retained.
17	1310 nm, 10G-LR transceivers for WAN/peripheral connectivity. If required, a QSA or compatible adapter must be supplied for 10G transceiver connectivity.	For this transceiver can third party optic be provided but operability will be guaranteed by OEM. Or can a break out cable with 10G LC connectors be provided to connect to a patch panel. The optic can support 10Km distance.	Transceivers from the same OEM is preferred. However, third party optic with operability guaranteed by OEM can be considered.
18	Addendum related to MAF	Related to Manufacturer Authorization Form (MAF)	In Section 3, Bidder's Eligibility Criteria, the following point is added. Should produce authorization from the OEM, if the solution involves an OEM different from the bidder.

			In Section 6, Organization of the Technical Bid, the following point is added. Manufacturer Authorization Forms (MAFs) or letters from the OEMs to the bidder for each of the components should be included in the technical bid.
19	Correction	Annexure 2-4 letters	In Annexure 2-4 letters, the years should be changed from “2024” to “2025”

Note: The 4.5% or less margin specified for multiple items is unified across all the items, i.e., irrespective of the number of these items where deviations are found, the maximum percentage in cost margin will be 4.5%.