

Corrigendum- 3

**Tender Ref. No: Ref. No NB.HO.DIT/1008/DIT-031-01/2018-19
dated 19/10/2018**

Last date for bid Submission is: 7th December 2018 1500 hours.

1. Chapter 2: Scope of work

Clause	Present provision	Revised provision
2.4.4	1-year warranty+5 years support – Total 6 years.	The hardware and software shall carry 3 year’s warranty post go live and AMC/ATS should be for 4 th , 5 th and 6 th year against payment on annual basis at the beginning of the year.
2.7	Besides the TAM, the SI shall provide for at least one On-site Engineer for a period of one year from the date of acceptance of Solution. He shall work and complete all activities as per the guidance of the TAM	<ol style="list-style-type: none">1. Besides the TAM, the SI shall provide for at least one On-site Engineer for a period of one year from the date of “Go Live” of the HCI Solution.2. Besides fine tuning and maintenance of the HCI Solution for 99.5% uptime, the On-site Engineer shall also provide support from HCI / Hypervisor side for any issues in upgrade/update of OS / DB on VMs on the HCI.3. He shall be present onsite from 9.00 AM to 6.00 PM on all working days. The Engineer shall also work beyond the working hours on weekdays and visit office on holidays as and when there is a necessity.
2.8	The TAM should be available onsite at least one day a week and should perform at minimal the following activities.	<ol style="list-style-type: none">1. The OEM Technical Account Manager shall provide 24 x 7 x 365 offsite support for the HCI solution for a period of one year from the date of “Go Live”, besides being present on site for at least 1 working day in a week between 9.00 AM to 6.00 PM.2. Besides fine tuning and maintenance of the HCI Solution for 99.5% uptime, the TAM shall also provide support from HCI / Hypervisor side for any issues in upgrade/update of OS / DB on VMs on the HCI.

		<p>3. In a situation, where the Onsite Engineer of SI is unable to deliver the required support, the Technical Account Manager shall facilitate visit of qualified engineer from the OEM for providing the required support.</p> <p>4. After expiry of one year, if NABARD desires to continue availing the services of TAM, the parties will mutually agree on the terms and conditions.</p>
--	--	---

2. Chapter 4: Payment: (Refer section 4.2 of RFP).

The revised payment terms are as follows:

Sl.No	Milestones	Payment
1	Hardware Delivery	50 % of Hardware cost
2	Software Licenses delivery	50 % of software cost
3	Installation and commissioning	50% of the installation cost + 40% of Hardware cost + 40 % of Software cost
4	Migration of Existing VMs	50% of Migration Cost +40 % of Installation cost
5	Completion of Training and Submission of documentation & operational manuals	50 % of Training cost + 40 % of Migration cost + 5 % installation cost + 10% of Hardware cost+ 10% of software cost
6	6 months of Go Live	50 % training cost +10 % of migration cost + 5 % of Installation cost.

3. Annexure –D: Bid Security form stands withdrawn.

4. Specification for SWITCHES

All switches i.e. Core, ToR, Access switches quoted shall be from the **same OEM**.

4.1 CORE SWITCH - Specification

Architecture

- The Core switch shall be in High Availability.
- Switch should support 10G, 40G and 100G.
- Modular Switch with minimum 4 Slots.
- One slot with 24 ports populated with MMF SFP+ modules supporting 10G speed.
- One slot with 24 Nos. 100/1000/10000 (10 G) RJ45 ports on Copper.
- Two empty slots for future use.

L3 Features

- Support for 64K IPv4 and IPv6 unicast routes and 32K IPv4 and IPv6 multicast routes.
- Switch must support layer3 routing protocols like Static, RIP, OSPF, RIPnG, OSPFv3 from day 1
- Should have support BGP, IPV4, IPV6 etc.
- IGMP v1,v2,v3,v6 IGMP snooping, PIM SM/DM, MSDP.

DC Feature

- Data centre bridging exchange, IEEE 802.1Qbb, ETS, Data Center Bridging Exchange Protocol.

Security

- Control plane denial-of-service (DoS) protection, Dynamic ARP inspection. Dynamic ARP inspection, Sticky MAC, DHCP Snooping, Storm Control.

Other

- Should have redundant supervisors, system controllers, power supplies and fan trays.
- SNMP v1, v2, v3, RMON enabled, SSH, telnet, CLI and should have out of Band Management port.
- Switch should support port-mirroring feature for monitoring network traffic of a particular port/VLAN.
- 24 x 7 OEM Support on Core & TOR switches for a period of 3 years + 3 Years 24 x 7 OEM AMC to be supplied along with switches in name of NABARD.

4.2 TOP-OF-RACK SWITCH - Specification

Architecture

- The ToR switch shall be in High Availability.
- Switch should support 10G,25G,40G and 100G.
- 48 port switch - 10 ports populated with 100/1000 RJ45 ports on Copper and remaining 38 ports populated with MMF SFP+ modules supporting 10G speed.
- Switch must have 8GB memory and 32 GB SSD storage for effortless functioning under heavy traffic condition.
- Switch must support Spanning Tree Protocols such as STP, RSTP, MSTP, PVST/equivalent etc. Switch must support QinQ, PVLAN.

L3 Features

- Support for 64K IPv4 and IPv6 unicast routes and 32K IPv4 and IPv6 multicast routes.
- Switch must support layer3 routing protocols like Static, RIP, OSPF, RIPnG, OSPFv3 from day 1.
- The DC Features, Security Features and Management features should be in congruence with the Core Switch.

DC Feature

- Data centre bridging exchange, IEEE 802.1Qbb, ETS, Data Center Bridging Exchange Protocol.

4.3 ACCESS SWITCH - Specification

Architecture

- **18 switches** - 48 port Access switches populated with 10/100/1000 Base-T PoE ports ,2 dedicated stacking ports and console port for out of band management.
- **14 switches** - 48 port Access switches populated with 10/100/1000 Base-T PoE ports, 2 x MMF SFP+ modules supporting 10G speed for up linking and 2 dedicated stacking ports and console port for out of band management.
- Switch should have minimum DRAM – 1GB, Flash – 1GB, CPU – Dual Core 1GHz or more.
- 802.3ad based standard port/link aggregation, Jumbo frames, storm control.
- Switch must have power budget to support all 48 ports simultaneously on PoE+-32 watts.
- Switch should have stacking capability and should support stacking of 6 or more switches.

L3 Features

- Switch should Support Layer3 routing protocols like Static, RIP v1/v2, OSPF, RIPnG, OSPFv3, BGP v4/v6, MLDv2.
- Switch should support features like ACL, Dynamic ACL, VLAN Assignment, 802.1x, Mac authentication, hybrid assignment.

Other

- The DC Features, Security Features and Management should be in congruence with the Core Switch.
- 8 x 5 x Next Business Day replacement OEM support on Access switches for a period of 3 years + 3 years AMC.
- Required length of fibre patch cord / DAC cable supporting 10G to connect Core Switch - TOR Switch in server room / DC supplied by vendor on day one considering connectivity in High Availability.

5. OFC laying between DC and Hub rooms

The scope of work also includes **laying of 6 core 2 nos. Multi-Mode Fibre cables (High Availability)** supporting 10G, 40G and 100G between Data Centre located at 5th floor to 6 hub rooms located 2 each at B and D wings of 3rd, 5th and 7th Floors. Maximum length up to hub room is up to 160 Metres. Total fibre cable length assessed at 1800 Metres.
