Dated: 18.08.2021





RailTel Corporation of India Ltd (A Government of India Enterprise) Plate-A, 6th Floor, Office Tower-2, NBCC Building, East Kidwai Nagar, New Delhi-110023

Website: www.railtelindia.com

Corrigendum -II

Subject: Supply, Installation, Testing, Commissioning and Upgradation of Hardware of ERP Solution.

Ref: This Office Tender No. RailTel/Tender/OT/CO/IT/P2021-22/ERP Solution/001 dated 15.07.2021

1. The following clause is added in Chapter 4 Clause Number 4 "Technical Specifications"

Clause Number 4.1: For SOR-11 (Core Switch):

Leaf	Leaf (10G Fibre) Switch Specification				
SN	Solution Requirement				
1	The Switch should support non-blocking architecture, wire speed line rate performance				
2	The switch quoted should be part of latest Gartner's Leader Quadrant for Data Center networking. All the switches should be from same OEM				
3	Hardware and Interface Requirement				
4	Switch should have the minimum following interfaces: $48 \times 16/10G/25G$ and $6 \times 100G$ ports. Switch should be populated with $48*10G$ multi mode interfaces and $6 \times 100G$ ports fully populated using multimode 100G Transceivers, for uplink connectivity				
5	Switch should have console port				
6	Switch should have management interface for Out of Band Management				
7	Switch should have a minimum 40 MB buffer of more.				
8	Switch should have smart buffering mechanism to classify long lived versus short lived flows and must have capability to dynamically prioritize short lived flows during congestion to avoid packet drop of mission critical traffic.				
	Bidder can propose more than 2GB Buffer in a switch alternatively, if this feature is not supported in switch.				
	Performance Requirement				
9	Switch should support minimum 512 VRF instances				
10	The switch should support hardware based load balancing at wire speed using LACP and multi chassis ether channel/ LAG ether channel/ LAG				
11	Switch should support minimum 3.6 Tbps of non blocking Switching bandwidth				
	Virtualization Features				
12	Switch should support Network Virtualisation using Virtual Over Lay Network using VXLAN (RFC 7348)/NVGRE as per RFC 2890				
13	Switch should support VXLAN (RFC7348) and EVPN for supporting Spine - Leaf architecture to optimise the east - west traffic flow inside the data center				
14	Switch should support Open Flow/Open Day light/Open Stack controller				





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15	Switch should support multi OEM hypervisor environment.
	Switch should integrate and would be part of Existing Fabric (as a Leaf), so that the Data Center Existing Networking environment can be used seamlessly with following Benefits:
16	policy-driven automation through an integrated underlay and overlay, is hypervisor agnostic, and extends policy automation to any workload — including virtual machines, physical bare-metal servers, and containers.
	If any integration issue of the Leaf switches in the existing controller and Spine -Leaf architecture, bidder to propose separate Spine switches and SDN controller separately
17	The proposed solution must be able to analyse real time data about the network which includes any metadata, configurations, policies, device states or protocol states and then run automated checks to identify potential errors, misconfigurations and network misbehaviours.
18	The proposed solution must be able to verify configurations before been committed to be adherent to configuration best practices and if any check/verification failure occurs then system must notify it to the admin via a suitable mechanism
	Layer2 Features
19	Switch should support VLAN Trunking (802.1q) and should support 3000 VLAN
20	Switch should support minimum 64K no. of MAC addresses
21	Switch should support 8 Nos. of link or more per Port channel (using LACP) and support 16 port channels or more per switch
	Layer3 Features
22	Switch should support static routing, OSPFv2, OSPFv3, ISIS, BGPv4, MP-BGP, EVPN
23	Switch should provide multicast routing like PIM, MSDP
	Availability
24	Switch should have power supply redundancy and multiple FAN modules.
25	Switch should provide gateway level of redundancy in IPv4 and IPv6 using HSRP/VRRP
26	Switch should support for BFD For Fast Failure Detection
	Quality of Service
27	Switch system should support 802.1P classification
	Security
28	Switch platform should support MACSec in hardware
29	Switch should support control plane i.e. processor and memory protection from unnecessary or DoS traffic by control plane protection policy
30	Switch should support for external database for AAA using: TACACS+ and RADIUS
	Manageability
31	Switch should support for sending logs to multiple centralised syslog server for monitoring and audit trail
32	Switch should provide remote login for administration using: Telnet, SSHv2
33	Switch should support for basic administrative tools like PING, TRACEROUTE
34	Switch should support central time server synchronisation using Network Time Protocol NTP v4
35	Switch should provide different privilege for login into the system for monitoring and management
36	Switch and optics should be from the same OEM
37	The Switch platform should IPv6 logo ready certified

2. The following clause is added in Chapter 4 Clause Number 2 "Existing Landscape of ERP Deployment"





Existing Data Base & Application Information for DR

Database Tier -

Oracle One Node with Oracle ASM

Oracle Shared storage

Application Tier-

Dedicated for LAN / WAN / VPN users – Internal Applications Tier has One node. – Application Servers is on SAN storage.

Application / DB Version

S. No.	Product	Version
1	Oracle Database version	11.2.0.3
2	Oracle Application version	12.1.3
3	Single instance Database	Single node
4	4 ADF application (Running on WebLogic)	
5	Last patch set applied on Database	None

3. Following clause is added in Chapter 4 Clause Number 2 "Count of Custom Objects that exists in the current Oracle EBS Database".

Object Type	Object Count
TRIGGER	3
INDEX	31
VIEW	166
PROCEDURE	172
SEQUENCE	226
FUNCTION	236
PACKAGE	285
TABLE	984
Total	2103

4. The last date of submission of bids is extended from 25.08.2021 to 27.08.2021 up to 15.00 Hrs. Tender will be opened at 15:30 Hrs. on 27.08.2021

All other terms and conditions remain same as per Tender Document

Naresh Kumar DGM/IT For & on behalf of RailTel Corporation of India Ltd.