

Date: 11-12-2025

## Corrigendum - II

- Sub:** Tender for “Supply, Installation, Integration, & Commissioning of Internet Gateways including IT & Security equipment’s for RailTel ”
- Ref:** (i) RailTel/Tender/OT/CO/TP/2025-26/Internet Gateway & Security system/06 dated 12.11.25  
(ii) Corrigendum-I dated 04.12.25

In reference to the Tender for the “ Supply, Installation, Integration, & Commissioning of Internet Gateways including IT & Security equipment’s for RailTel against **E-Tender No RailTel/Tender/OT/CO/TP/2025-26/Internet Gateway & Security system/06 dated 12.11.2025**, following is issued with the approval of competent authority:

- 1: Corrigendum-II (Point 1- 4)
- 2: Response to Pre-bid queries (Point 1-11 )
- 3: Extension of Bid End Date/Time as mentioned below:

Present	Revised Tender closing/opening date and time
Bid End Date/Time 19-12-2025 15:00:00	Bid End Date/Time 26-12-2025 15:00:00
Bid Opening Date/Time 19-12-2025 15:30:00	Bid Opening Date/Time 26-12-2025 15:30:00

All other terms and conditions will remain unchanged.

  
(Deepti chauhan)  
Sr.DGM/Technology Planning  
for GM/Technology Planning  
(For and behalf of RailTel Corporation of India Ltd.)

**Corrigendum-II Tender no. RailTel/Tender/OT/CO/TP/2025-26/ Internet Gateway & Security System/06**

**Dated: 12.11.2025**

<b>S.No.</b>	<b>Tender Clause No.</b>	<b>Sub-clause no./ Point no.</b>	<b>Original Clause</b>	<b>Modified clause</b>
1	Clause 3.5 Chapter-3A, A.1 Technical Specifications for SDN Router (Tier-1,2,3&4)	SN-5, Tier-2	Minimum MAC Table Size: 1M	Minimum MAC Table Size: 500K
2	3.A.2 OVERVIEW OF THE SCOPE OF WORK	A-7 (e)-SDN Controller Provisioning at CNOC	The scope includes the supply, design, installation, testing, and commissioning of an SDN Controller at the Central Network Operations Center (CNOC) of same make with DC & DR or DC with application Backup at DR. This controller will centrally manage all deployed SDN routers and CGNAT devices, enabling unified orchestration and policy enforcement. In case CGNAT devices cannot be managed by SDN controller then a dedicated EMS of same make for managing CGNAT devices should be proposed as part of the solution with DC & DR or DC with application Backup at DR.	The scope of work includes the supply, design, installation, testing, and commissioning of an SDN Controller at the Central Network Operations Center (CNOC), deployed either in a Data Centre (DC) and Disaster Recovery (DR) setup or in a DC with application backup at DR. The SDN Controller must be of the same make as the deployed routers and CGNAT devices to ensure seamless integration, centralized orchestration, and unified policy enforcement. In cases where CGNAT devices are of a different make or cannot be managed by the SDN Controller, a dedicated Element Management System (EMS) of the same make as the CGNAT devices shall be provided. This EMS must be deployed with DC and DR or DC with application backup at DR, and shall support the latest APIs along with configuration, fault, and performance management. The system shall comply with open APIs, standards-based SNMP/YANG models, and include OEM professional services for a minimum of six months at CNOC to integrate the EMS with RailTel OSS (Vision Wave), ensuring complete operational readiness.
3	Clause 3.5 Chapter-3A, A.1 Technical Specifications for SDN Router (Tier-1,2,3&4)	SN-1, Tier-1	Minimum Ports (excluding SFP/SFP28/QSFP/QSFP28) from day one. 24x100G/200G/400G QSFP-DD or 8x200G/400G QSFP DD and 16X100G QSFP28/QSFP-DD for Tier-1 and It should also support BNG at all ports in future in case required for both Tier-I & II.	Minimum Ports (excluding SFP/SFP28/QSFP/QSFP28) from day one. 24x100G/200G/400G QSFP-DD or 8x400G QSFP DD & 8X100G QSFP28 for Tier-1 and It should also support BNG at all ports in case required for both Tier-I (48K) & II (32K).Any commercials associated with this requirement should also be included in the current proposal."
4	Clause 3.5 Chapter-3A, A.2 .Technical Specifications for CGNAT Appliance/Module (Type-1 and Type2	7	Proposed platform shall support minimum concurrent established connections from day 1. 30 Million for Type-2	Proposed platform shall support minimum concurrent established connections from day 1. 12 Million for Type-2

**Dated: 12.11.2025**

S.N	Clause	Existing clause Description	Changed Request/Clarification	Remarks/Justification	RailTel Response
1	3.A.3) 3.5) A.1) 4	Tier-1: Minimum MAC Table Size: 1M	We would request to reduce the MAC table size to 500K, considering this is Core router	considering this is Core router, request for reduction	May please refer corrigendum-I
2	3.A.3) 3.5) A.1) 4	Tier-2: Minimum MAC Table Size: 1M	We would request to reduce the MAC table size to 500K, considering this is Core router	considering this is Core router, request for reduction	May please refer corrigendum-II
3	3.A.2)A)7)e)	A3. SDN Controller: SDN Controller Provisioning at CNOC The scope includes the supply, design, installation, testing, and commissioning of an SDN Controller at the Central Network Operations Center (CNOC) of same make with DC & DR or DC with application Backup at DR. This controller will centrally manage all deployed SDN routers and CGNAT devices, enabling unified orchestration and policy enforcement. In case CGNAT devices cannot be managed by SDN controller then a dedicated EMS of same make for managing CGNAT devices should be proposed as part of the solution with DC & DR or DC with application Backup at DR	We request to allow integration of devices in existing SDN controller at CNOC with "DC & DR" or "DC with application Backup at DR" or Local HA at DC Site	Single Pane of glass. Also, this will help to utilize existing capacity in existing resources	May please refer corrigendum-II
4	3.A.3) 3.5) A.2 ) 1.d)	The CGN must allow the NAT outside pool to be made up of contiguous IPv4 subnets, non-contiguous IPv4 subnets and/or a combination thereof. Please specify the number of subnets that can be used to for one pool.	The CGN must allow the NAT outside pool to be made up of contiguous IPv4 subnets, non-contiguous IPv4 subnets and/or a combination thereof. Please specify the number of subnets that can be used to for one pool. To elaborate the requirement - If there are few forbidden IP addresses, there should be a provision to avoid / exclude these specific IP addresses (contiguous or non-contiguous) from the pool defined, and there should be a provision to define multiple ip address ranges accordingly. This should be achievable by the solution proposed.	We understand that we should have provision to exclude IP subnets or IP addresses when configuring the CGNAT solution. The requirement is well understood and can be achieved as per the requirement.	No Change.
5	3.A.3) 3.5) A.2 ) 1.f)	The CGN must support static-port forwarding to allow a subscriber to define a mapping of (protocol, outside IP, outside port, inside address, inside port) on the CGN	The CGN must support static-port forwarding to allow a subscriber to define or view a mapping of (protocol, outside IP/ outside port/ inside address, inside port) on the CGN. This information should be available on-device or thru high-speed-logging/respective logging mechanism if this needs to be reviewed.	We understand that static-port forwarding should be achievable for review as well. Considering different methodology that can be used by different OEMs, we understand the requirement, and this is achievable by the proposed solution.	No Change.
6	3.A.3) 3.5) A.2 ) 6)	The proposed platform shall support CGNAT functionalities like Deterministic, fixed Network Address Translation (NAT) and Port block allocation (PBA).	The proposed platform shall support CGNAT functionalities like fixed Network Address Translation (NAT) and Port block allocation (PBA). The solution should also have the capability to retain the CGN-TCP session details for minimum 15 mts.	We understand that different solutions follow different methodology for a capability to be delivered. Considering the use-case of Deterministic NAT, we recommend elaborating the functionality, which will help us achieve the use-case. We follow a default timeout to be defined in the solution, which is configurable. For e.g. for the TCP CGN session - the timeout is 15 mts by default and can be configured to a higher value too, as per the requirement. Considering the criticality of the network, we recommend to alter the language and define the timeout value to be mentioned, as modified and suggested in the clause.	No Change.
7	3.A.2 & Chapter no. 3A	SRv6-Based Path Selection Segment Routing over IPv6 (SRv6) shall be implemented across the proposed network. Path selection will be governed by SRv6 policies based on performance parameters such as path delay, packet drop rate, jitter, and other relevant metrics, enabling intelligent traffic engineering.	Request Railtel to confirm that SRv6 support is a day 1 requirement and would be deployed across all the SDN routers requested in this tender.	Clarification	SRv6 is a day-1 requirement .

S.N	Clause	Existing clause Description	Changed Request/Clarification	Remarks/Justification	RailTel Response
8	Corrigendum-1	Minimum Ports (excluding SFP/SFP28/QSFP/QSFP28) from day one. 24x100G/200G/400G QSFP-DD or 8x200G/400G QSFP DD and 16X100G QSFP28/QSFP-DD for Tier-1 and It should also support BNG at all ports in future in case required for both Tier-I & II .	Request Railtel to confirm the proposed Tier-1 and Tier-2 SDN routers to have integrated BNG capability with a scale of atleast 48K dual stack subscribers to be supported on Day 1. Any commercials associated with this requirement should also be included in the current proposal.	Since Railtel is using integrated BNG in existing network, request Railtel confirm the same with the required scale	May please refer corrigendum-II
9	3.A.3 & Chapter no. 3A	Minimum Ports from day one. Tier-3: 8x100G QSFP28 & 24x10/25G SFP28 Minimum Total throughput (Full duplex) : Tier-3: 800 Gbps	Request Railtel to modify the port requirements for Tier-3 SDN routers as "6x100G QSFP28 LR4 & 24x10/25G SFP28". with 2 box solution for Tier-3 locations Tier-3 700 Gbps OR modify the full duplex throughput required for Tier-3 SDN routers to 1.2Tbps.	This will allow broader participation.	No Change.
10	Corrigendum-1	Minimum Ports from day one. Tier-4: 2x40G QSFP+ & 8x10/25G SFP28	Request Railtel to modify the port requirements for Tier-4 SDN routers as "4x25G SFP28 LR4 & 16x1/10G SFP+" with LR optics for 25G and 10G interfaces.	This will allow broader participation.	No Change.
11	Technical Specifications for CGNAT Appliance: Type 2: point no. 7	Proposed platform shall support minimum concurrent established connections from day 1: 30 Million	Proposed platform shall support minimum concurrent established connections from day 1: 12 Million		May please refer corrigendum-II