



Dated: 13.08.2024

**रेलटेल कॉर्पोरेशन ऑफ़ इंडिया
RailTel Corporation of India Ltd
(भारत सरकार का उपक्रम)
(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-III

Sub: "Supply, Installation, Testing & Commissioning of Data Center Infrastructure at DC & DR of RailTel".

Ref: i) Tender No. RAILTEL/TENDER/OT/CO/ ITP/2024-25/ DC-DR Infra/007 dtd. 21.06.2024
ii) Corrigendum-I dtd 12.07.2024
iii) Corrigendum-II dtd 26.07.2024

With reference to ref i) RAILTEL/TENDER/OT/CO/ ITP/2024-25/ DC-DR Infra/007 dtd 21.06.2024, **the last date of submission of bid is extended from 14.08.2024 to 27.08.2024 up to 15:00 Hrs. All the submitted bids will be opened at 15:30 Hrs. on 27.08.2024.**

Further with reference to above tender ref i), following amendments are issued in the tender as follows:

1. Point no. 4, SOR-A, Item No. 1 (Rack Server), 4. Technical Requirement, Chapter-3A (Page no. 16) of Tender document:

Component	Original Clause	Revised Clause
	Minimum Requirement Description	Minimum Requirement Description
Memory slots	32 DDR4 DIMM slots RDIMMS & LR DIMMS supporting speeds at least 3200 MT/s or better	24 DDR4 or better DIMM slots RDIMMS & LR DIMMS supporting speeds at least 3200 MT/s or better.

2. Point no. 6, SOR-A, Item No. 1 (Rack Server), 4. Technical Requirement, Chapter-3A (Page no. 16) of Tender document:

Component	Original Clause	Revised Clause
	Minimum Requirement Description	Minimum Requirement Description
Disks supported	Front drive bays: Up to 12x 3.5" SAS/SATA/SSD	Front drive bays: Up to 12x 3.5/2.5" SAS/SATA/SSD

3. Point no. 9, SOR-A, Item No. 1 (Rack Server), 4. Technical Requirement, Chapter-3A (Page no. 16) of Tender document:

Component	Original Clause	Revised Clause
	Minimum Requirement Description	Minimum Requirement Description
I/O slots	Up to 8x PCIe Gen4 Slots	Up to 8x PCIe Gen4/5 Slots whichever is latest with offered OEM.

4. Point no. 5, SOR-A, Item No. 3 (NAS Storage), 4. Technical Requirement, Chapter-3A (Page no. 23) of Tender document:

Specification Category	Specification Details	Original Clause	Revised Clause
		Minimum Required Value	Minimum Required Value
Controllers	RAID Level Support	RAID 5, RAID 6, RAID 61	RAID 5, RAID 6

5. Point no. 6, SOR-A, Item No. 4 (DC Automation Platform), 4. Technical Requirement, Chapter-3A (Page no. 25) of Tender document:

Original Clause	Revised Clause
Specification	Specification
The software should have defined playbook for doing repeated tasks in automated manner, List of playbooks/activities needs to be created shall be given by RailTel at the time of deployment, bidder/OEM has to create playbooks as per the requirement of RailTel.	The software should have defined playbook for doing repeated tasks in automated manner, List of playbooks/activities needs to be created shall be given by RailTel at the time of deployment, bidder/OEM has to create playbooks as per the requirement of RailTel. Bidder has to provision sufficient man days from respective OEM to cater around 25 customized use cases as per RailTel requirement related to e-Office, HMIS, Cloud, Email, Security items like firewall, VPN, SIEM, WAF etc.

6. Point no. 25, SOR-A, Item No. 4 (DC Automation Platform), 4. Technical Requirement, Chapter-3A (Page no. 25) of Tender document:

Original Clause	Revised Clause
The Offered software should able to cache isolated node facts	The Offered software should able to cache node facts.

7. Clause no. 5, Payment Terms, Chapter-4 (Page no. 42 to 43) of Tender document may be read as:

5.1. Payment shall be made in Indian Currency (Rs) 75% payment of the value of the supplied SOR-A items would be made on receipt of material by the consignee (at site / the stores) duly inspected and on submission of the following documents subject to any deductions or recovery which RailTel may be entitled to make under the contract:

- i) Tax Invoice (GST)
- ii) Delivery Challan/e-way bill.
- iii) Packing list.
- iv) Factory Test Report/Certified manufacturer Test Report
- v) Purchaser's Inspection certificate
- vi) Consignee receipt

- vii) Warranty certificate of OEM
- viii) Insurance certificate
- ix) Certificates duly signed by the firm certifying that equipment/ materials being delivered are new and conform to technical specification.

5.2. 15% payment of the value of Supplied SOR-A items of the PO shall be made by RailTel on successfully Installation & Commissioning at site based on SAT Report issued by RailTel DC Team, 5% payment of value of Supply items of the PO on issue of Provisional Acceptance Certificate (PAC) and the last 5% payment of the value of Supply items of the PO shall be made by RailTel on issue of Final Acceptance Certificate (FAC) which will be issued by Contract Management Authority i.e. GM/ITP/CO.

5.3. 15% payment of value of supplied SOR-A items of the PO which could not be installed and commissioned within 180 days due to site readiness or other reason on account of RailTel will be made with approval of Contract Management Authority i.e. GM/ITP/CO and remaining (5% + 5%) on issue of PAC and FAC as per clause 5.2.

5.4. RailTel shall make payments after the submission of invoice with required documents as per contract. Accounting/Bill passing unit for SOR for supplies is Corporate Office. All Bills shall be submitted to **DGM/ITP/CO** for certifying and verification and onwards submission to Finance of RailTel Corporate Office for releasing the payment.

8. Response to Pre-bid Queries of DC-DR Infra Tender is attached as Annexure-I.

9. All other terms & conditions of tender remain same.

(Himadri Samaddar)
GM/ITP/CO

रेलटेल कॉर्पोरेशन ऑफ इंडिया लिमिटेड (भारत सरकार का उपक्रम)
RailTel Corporation of India Ltd. (A Government of India Undertaking)

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**PRE-BID QUERIES REPLY of Open E-Tender No.: RAILTEL/TENDER/OT/CO/ ITP/2024-25/ DC-DR Infra/007
Dtd. 21.06.2024**

(ANNEXURE-I)

SI No	Page No	Chapter No	Tender clause No	Bidders query	Justification/ Reason	RailTel Response
1	43	4	6.1	PBG should 3% of PO value	GOI circular dt 30/12/2021	As per Tender.
2	7	2	6	Integration with existing Infra	Please share details of existing infra	Existing Infra means Multi-cloud, Networking and Security devices, NMS, SIEM, etc.
3		Storage Type	Unified Storage	Modification required: Unified Storage/ Storage with Redundant File Gateways.	Unified is a OEM specific terminology and as this is a NAS requirement , request you to ammend this clause accordingly for wider participation.	As per Tender.
4		RAID Level Support	RAID 5, RAID 6, RAID 61	Modification required: RAID 5/ RAID 6/RAID 61	Request you to modify this clause for wider participation	As per Corrigendum-III
5		SOR-A, Item No. 3 (NAS Storage):	Solution should have capabilities to add NAS/Gateway/File serving node in active-active architecture for CIFS and NFS connections.	Modification required: Solution should have capabilities to add NAS/Gateway/File serving node in Redundantarchitecture for CIFS and NFS connections.	Request you to modify this clause for wider participation	As per Tender.
6		SOR-A, Item No. 3 (NAS Storage):	The NAS/Gateway/File serving node should be purpose-built appliance and should not be a host based or running on general purpose OS or a simple SMB/NFS configured file server.	Modification required: The NAS/Gateway/File serving node should be appliance which should have capability to run file services.	Kindly modify this clause for wider participation.	As per Tender.
7		SOR-A, Item No. 3 (NAS Storage):	Proposed NAS system should have purpose-built hardware acceleration through specialized hardware such as FPGA for superior performance.	Modification required: Proposed NAS system should have purpose-built hardware acceleration for superior performance.	Every OEM has its own architecture, request you to modify this clause for wider participation.	As per Tender.
8		SOR-A, Item No. 3 (NAS Storage):	Proposed NAS system should have the capability to tier data to an Object Storage or Cloud natively.	Modification required: Proposed NAS system should have the capability to tier/replicate data to an Object Storage or Cloud natively.	Every OEM has its own architecture, request you to modify this clause for wider participation.	As per Tender.
9	16	3-A	4.4 Memory Slots	Request to change the memory speed from 3200MT/s to 5600MT/s and DDR4 to DDR5.	Railtel being a technology adopter always chosen a latest technology and asked changes are inline with latest technology trend.	As per Corrigendum-III
10	16	3-A	4.5 Memory Configured	Request to change the memory speed from 3200MT/s to 5600MT/s	Railtel being a technology adopter always chosen a latest technology and asked changes are inline with latest technology trend.	As per Tender.
11	16	3-A	7 Raid Controller	12Gbps PCIe 3.0 with RAID 1, 5, 6,10 with at least 8 GB cache	Asked usable capacity fairly high so to get an optimal performance for this kind of heavy storage server cache on controller should be high.	As per Tender
12	16	3-A	9 I/O Slots	Up to 8x PCIe Gen5.0 x16 Slots	PCIe 5.0 is latest technology and to harness the power of latest CPU platform pcie lanes should work at higher speed.	As per Corrigendum-III
13	16	3-A	18 Server Security	Secure erase should be single click Secure Erase designed to decommission/repurpose servers.	In matters of security Railtel should consider best features available. It is important from lifecycle management perspective that all identifiable data is deleted in unrecoverable manner. In case not having single click will invlove manual processes which is prone to human error and some steps may get skipped and pose security threat.	As per Tender.
14	16	3-A	19 Additional	We assume external storage is same which is asked in this tender not the existing one. If this integration is required for existing external storage then details of that storage will be required.		It is for existing external storage and the storage being asked in this tender as well.

SI No	Page No	Chapter No	Tender clause No	Bidders query	Justification/ Reason	RailTel Response
15	16	3-A	4 Memory Slots	Request to change the clause: 32 DDR4 DIMM slots RDIMMS supporting speeds at least 5200 MT/s or better	Railtel being a technology adopter always chosen a latest technology and asked changes are inline with latest technology trend. Also LR DIMM is dying technology and with latest generation server LR DIMMS are not supported hence requesting this change. Request to change the clause: 32 DDR4 DIMM slots RDIMMS supporting speeds at least 5200 MT/s or better.	Repeated at SI No. 9
16	16	3-A	5 Memory Configured	Request to change the clause: Configured with 12 nos. 128 GB or 24 nos. 64GB RDIMM 5200MT/s.	Railtel being a technology adopter always chosen a latest technology and asked changes are inline with latest technology trend. Request to change the clause: Configured with 12 nos. 128 GB or 24 nos. 64GB RDIMM 5200MT/s.	As per Tender.
17	16	3-A	6 Disks supported	Request to change the clause: Front drive bays: Up to 12x 3.5/2.5" SAS/SATA/SSD	To offer 80TB storage, higher capacity SSD's are required which are not supported with 3.5 Inch drive bays. This is a restrictive clause hence request to relax this clause for wider participation. Request to change the clause: Front drive bays: Up to 12x 3.5/2.5" SAS/SATA/SSD	As per Corrigendum-III
18	16	3-A	7 Raid Controller	Request to change the clause: 12Gbps PCIe 3.0 with RAID 1, 5, 6,10 with at least 8GB cache or better and 32 Gbps HBA Card populated from Day-1	80TB capacity is high and to control this much capacity controller with higher cache is required to meet the performance needs else latency may incur and degrade the overall application performance. Request to change the clause: 12Gbps PCIe 3.0 with RAID 1, 5, 6,10 with at least 8GB cache or better and 32 Gbps HBA Card populated from Day-1	As per Tender.
19	16	3-A	8 Disk Configured	At least 2 nos. of 960 GB flash drive/read intensive SSDSATA / M.2 drives in mirrored configuration for OS. Usable storage of at-least 80 TB SAS SSD populated from day-1	Usable capacity can be determined after considering RAID hence request you to please specify the RAID level to arrive at right usable capacity.	As per Tender.
20	16	3-A	9 I/O Slots	Request to change the Clause: 8x PCIe Gen5.0 x16 Slots	Railtel has always been adopting latest technology and same is being mentioned in CPU clause and same should be followed for PCIe slots. Not specifying PCIe 5.0 would be defeating the goal of extracting benefits of Gen4 CPU based systems. Please note PCIe 4.0 slot has max. bandwidth of 16GT/s while PCIe 5.0 would have double bandwidth of pcie 4.0. PCIe 5.0 provide additional PCIe lanes for direct access to CPU lanes for GPU and SSD/NVME drives. Request you to consider PCIe5.0 based slot to realize performance benefits & investment return of latest generation PCIe technology being offered by both Intel and AMD based system. To have best utilization of invest being made and performance PCIe slots should be of x16 bus width. Request to modify the clause as "Minimum of 7 Nos of PCIe 5.0 x16 bus width based slots supporting Ethernet/ FC adapters." Request to change the clause: 8x PCIe Gen5.0 x16 Slots	Repeated at SI No. 12

SI No	Page No	Chapter No	Tender clause No	Bidders query	Justification/ Reason	RailTel Response
21	17	3-A	18 Server Security	Request to change the clause: Single click Secure Erase designed to decommission/repurpose servers.	In matters of security Railtel should consider best features available. It is important from lifecycle management perspective that all identifiable data is deleted in unrecoverable manner. In case not having single click will involve manual processes which is prone to human error and some steps may get skipped and pose security threat. Request to change the clause: Single click Secure Erase designed to decommission/repurpose servers.	Repeated at SI No. 13
22	17	3-A	18 Server Security	Request to add this Point: Should have dashboard for firmware baselines while performing minimum required firmware checks and highlighting out-of-compliance devices for updates with the selected firmware baseline Major attacks are happening through firmware hence it is important to secure the firmware. which is impractical to attain via manual process.	This feature can help in managing the firmware & compliances better. Request to add this Point: Should have dashboard for firmware baselines while performing minimum required firmware checks and highlighting out-of-compliance devices for updates with the selected firmware baseline Major attacks are happening through firmware hence it is important to secure the firmware. which is impractical to attain via manual process.	As per Tender.
23	17	3-A	18 Server Security	Hardware Root of Trust Request to add this point in clause: FIPS 140-2, TPM 1.2/2.0, and NIST SP 800-147 ("BIOS Integrity Measurement Guidelines") should be available.	Security is paramount and to make the server secure requesting this change along with hardware root of trust. Request to add this point in clause: FIPS 140-2, TPM 1.2/2.0, and NIST SP 800-147 ("BIOS Integrity Measurement Guidelines") should be available.	As per Tender.
24	16	3-A	4.4 Memory Slots	Request to change the memory speed from 3200MT/s to 5600MT/s and DDR4 to DDR5.	Railtel being a technology adopter always chooses a latest technology and asked changes are inline with latest technology trend.	Repeated at SI No. 9
25	16	3-A	4.5 Memory Configured	Request to change the memory speed from 3200MT/s to 5600MT/s	Railtel being a technology adopter always chooses a latest technology and asked changes are inline with latest technology trend.	Repeated at SI No. 10
26	16	3-A	7 Raid Controller	12Gbps PCIe 3.0 with RAID 1, 5, 6,10 with at least 8 GB cache	Asked usable capacity fairly high so to get an optimal performance for this kind of heavy storage server cache on controller should be high.	Repeated at SI No. 11
27	16	3-A	9 I/O Slots	Up to 8x PCIe Gen5.0 x16 Slots	PCIe 5.0 is latest technology and to harness the power of latest CPU platform PCIe lanes should work at higher speed.	Repeated at SI No. 12
28	16	3-A	18 Server Security	Secure erase should be single click Secure Erase designed to decommission/repurpose servers.	In matters of security Railtel should consider best features available. It is important from lifecycle management perspective that all identifiable data is deleted in unrecoverable manner. In case not having single click will involve manual processes which is prone to human error and some steps may get skipped and pose security threat.	Repeated at SI No. 13
29	16	3-A	19 Additional	We assume external storage is same which is asked in this tender not the existing one. If this integration is required for existing external storage then details of that storage will be required.		Repeated at SI No. 14

SI No	Page No	Chapter No	Tender clause No	Bidders query	Justification/ Reason	RailTel Response
30	16	3-A	4 Memory Slots	Request to change the clause: 32 DDR4 DIMM slots RDIMMS supporting speeds at least 5200 MT/s or better	Railtel being a technology adopter always chosen a latest technology and asked changes are inline with latest technology trend. Also LR DIMM is dying technology and with latest generation server LR DIMMS are not supported hence requesting this change. Request to change the clause: 32 DDR4 DIMM slots RDIMMS supporting speeds at least 5200 MT/s or better.	Repeated at SI No. 9
31	16	3-A	5 Memory Configured	Request to change the clause: Configured with 12 nos. 128 GB or 24 nos. 64GB RDIMM 5200MT/s.	Railtel being a technology adopter always chosen a latest technology and asked changes are inline with latest technology trend. Request to change the clause: Configured with 12 nos. 128 GB or 24 nos. 64GB RDIMM 5200MT/s.	Repeated at SI No. 16
32	16	3-A	6 Disks supported	Request to change the clause: Front drive bays: Up to 12x 3.5/2.5" SAS/SATA/SSD	To offer 80TB storage, higher capacity SSD's are required which are not supported with 3.5 Inch drive bays. This is a restrictive clause hence request to relax this clause for wider participation. Request to change the clause: Front drive bays: Up to 12x 3.5/2.5" SAS/SATA/SSD	Repeated at SI No. 17
33	16	3-A	7 Raid Controller	Request to change the clause: 12Gbps PCIe 3.0 with RAID 1, 5, 6,10 with at least 8GB cache or better and 32 Gbps HBA Card populated from Day-1	80TB capacity is high and to control this much capacity controller with higher cache is required to meet the performance needs else latency may incur and degrade the overall application performance. Request to change the clause: 12Gbps PCIe 3.0 with RAID 1, 5, 6,10 with at least 8GB cache or better and 32 Gbps HBA Card populated from Day-1	Repeated at SI No. 18
34	16	3-A	8 Disk Configured	At least 2 nos. of 960 GB flash drive/read intensive SSDSATA / M.2 drives in mirrored configuration for OS. Usable storage of at-least 80 TB SAS SSD populated from day-1	Usable capacity can be determined after considering RAID hence request you to please specify the RAID level to arrive at right usable capacity.	Repeated at SI No. 19
35	16	3-A	9 I/O Slots	Request to change the Clause: 8x PCIe Gen5.0 x16 Slots	Railtel has always been adopting latest technology and same is being mentioned in CPU clause and same should be followed for PCIe slots. Not specifying PCIe 5.0 would be defeating the goal of extracting benefits of Gen4 CPU based systems. Please note PCIe 4.0 slot has max. bandwidth of 16GT/s while PCIe 5.0 would have double bandwidth of pcie 4.0. PCIe 5.0 provide additional PCIe lanes for direct access to CPU lanes for GPU and SSD/NVME drives. Request you to consider PCIe5.0 based slot to realize performance benefits & investment return of latest generation PCIe technology being offered by both Intel and AMD based system. To have best utilization of invest being made and performance PCIe slots should be of x16 bus width. Request to modify the clause as "Minimum of 7 Nos of PCIe 5.0 x16 bus width based slots supporting Ethernet/ FC adapters." Request to change the clause: 8x PCIe Gen5.0 x16 Slots	Repeated at SI No. 12

SI No	Page No	Chapter No	Tender clause No	Bidders query	Justification/ Reason	RailTel Response
36	17	3-A	18 Server Security	Request to change the clause: Single click Secure Erase designed to decommission/repurpose servers.	In matters of security Railtel should consider best features available. It is important from lifecycle management perspective that all identifiable data is deleted in unrecoverable manner. In case not having single click will involve manual processes which is prone to human error and some steps may get skipped and pose security threat. Request to change the clause: Single click Secure Erase designed to decommission/repurpose servers.	Repeated at SI No. 13
37	17	3-A	18 Server Security	Request to add this Point: Should have dashboard for firmware baselines while performing minimum required firmware checks and highlighting out-of-compliance devices for updates with the selected firmware baseline Major attacks are happening through firmware hence it's important to secure the firmware, which is impractical to attain via manual process.	This feature can help in managing the firmware & compliances better. Request to add this Point: Should have dashboard for firmware baselines while performing minimum required firmware checks and highlighting out-of-compliance devices for updates with the selected firmware baseline Major attacks are happening through firmware hence it's important to secure the firmware, which is impractical to attain via manual process.	Repeated at SI No. 22
38	17	3-A	18 Server Security	Hardware Root of Trust Request to add this point in clause: FIPS 140-2, TPM 1.2/2.0, and NIST SP 800-147 ("BIOS Integrity Measurement Guidelines") should be available.	Security is paramount and to make the server secure requesting this change along with hardware root of trust. Request to add this point in clause: FIPS 140-2, TPM 1.2/2.0, and NIST SP 800-147 ("BIOS Integrity Measurement Guidelines") should be available.	Repeated at SI No. 23
39	28	3-A	SOR-A, Item No. 6 (PAM Solution):- 13. The proposed solution should provide Scan utility which should scan our on-prem infrastructure and provides the report with the list of all the privilege accounts and SSH keys at our environment. Also, it should tell about compliance status for each account.	Request you to please elaborate about Compliance Status? Do we need to add a SCM Solution? Security Compliance Management Solution has the ability to detect, assess, and mitigate risks associated with compliance gaps across multiple layers of information technology assets. The solution helps to develop a comprehensive risk management framework with robust auditing and reporting engine as well.		As per Tender
40	28	3-A	SOR-A, Item No. 6 (PAM Solution):- 3. The proposed solution should support on-prem implementation for 200 users and there will be no restriction on no. of devices. Bidder needs to supply all necessary license including Microsoft RDS CAL, OS licenses, DB licenses etc. for providing it as a solution.	Requesting you to please help with a ballpark figure for number of devices to be on-boarded and managed by PAM. PAM Solution will support unlimited devices, We need the Device count for Sizing hardware for PAM Solution.		As per Tender
41	28	3-A	SOR-A, Item No. 6 (PAM Solution):- 10. The proposed solution should support complete active active configuration at all infrastructure components. It should support high availability Vault environment since this is crucial for the Vault availability.	Do we need to propose High Availability in Both DR and DR Site ?		As per Tender
42	28	3-A	SOR-A, Item No. 6 (PAM Solution):- 11. The proposed solution should support Disaster Recovery Site so that should be able to continue functioning without losing any data as a result of the failure.	Do we need to propose High Availability in Both DR and DR Site ?		As per Tender
43	31	3-A	SOR-A, Item No. 6 (PAM Solution):- 58. The Behavior Analytics platform must provide an overview of users with active mobile-cached accounts.	Please explain the usecase in detail		As per Tender

SI No	Page No	Chapter No	Tender clause No	Bidders query	Justification/ Reason	RailTel Response
44	22	3-A	Storage Type- Unified Storage	Modification required: Unified Storage/ Storage with Redundant File Gateways.	Unified is a OEM specific terminology and as this is a NAS requirement , request you to ammend this clause accordingly for wider participation.	Repeated at SI No. 3
45	23	3-A	RAID Level Support- RAID 5, RAID 6, RAID 61	Modification required: RAID 5/ RAID 6/RAID 61	Request you to modify this clause for wider participation	Repeated at SI No. 4
46	23	3-A	SOR-A, Item No. 3 (NAS Storage):- Solution should have capabilities to add NAS/Gateway/File serving node in active-active architecture for CIFS and NFS connections.	Modification required: Solution should have capabilities to add NAS/Gateway/File serving node in Redundantarchitecture for CIFS and NFS connections.	Request you to modify this clause for wider participation	Repeated at SI No. 5
47	24	3-A	SOR-A, Item No. 3 (NAS Storage):-The NAS/Gateway/File serving node should be purpose-built appliance and should not be a host based or running on general purpose OS or a simple SMB/NFS configured file server.	Modification required: The NAS/Gateway/File serving node should be appliance which should have capability to run file services.	Kindly modify this clause for wider participation.	Repeated at SI No. 6
48	24	3-A	SOR-A, Item No. 3 (NAS Storage):- Proposed NAS system should have purpose-built hardware acceleration through specialized hardware such as FPGA for superior performance.	Modification required: Proposed NAS system should have purpose-built hardware acceleration for superior performance.	Every OEM has its own architecture, request you to modify this clause for wider participation.	Repeated at SI No. 7
49	24	3-A	SOR-A, Item No. 3 (NAS Storage):- Proposed NAS system should have the capability to tier data to an Object Storage or Cloud natively.	Modification required: Proposed NAS system should have the capability to tier/replicate data to an Object Storage or Cloud natively.	Every OEM has its own architecture, request you to modify this clause for wider participation.	Repeated at SI No. 8
50	28	3	3. The proposed solution should support on-prem implementation for 200 users and there will be no restriction on no. of devices. Bidder needs to supply all necessary license including Microsoft RDS CAL, OS licenses, DB licenses etc. for providing it as a solution.	Requesting you to please help with a ballpark figure for number of devices to be on-boarded this will help to define the Hardware Sizing. PAM Solution will support unlimited devices, We need the Device count for Sizing hardware for PAM Solution.		Repeated at SI No. 40
51	28	3	10. The proposed solution should support complete active active configuration at all infrastructure components. It should support high availability Vault environment since this is crucial for the Vault availability.	Do we need to propose High Availability in Both DC and DR Site ?		Repeated at SI No. 41
52	28	3	11. The proposed solution should support Disaster Recovery Site so that should be able to continue functioning without losing any data as a result of the failure.	Do we need to propose High Availability in Both DC and DR Site ?		Repeated at SI No. 42

SI No	Page No	Chapter No	Tender clause No	Bidders query	Justification/ Reason	RailTel Response
53	46	12.1. Eligibility Criteria for Bidder	<p>3. Technical Capability: The tenderer must have successfully completed any of the following during last 07 (seven) years, ending last day of month previous to the one in which tender is invited:</p> <p>One similar work# each costing not less than the amount Rs. 11.75 Cr, or Two similar works# each costing not less than the amount Rs. 7.83 Cr., or Three similar works# each costing not less than the amount Rs. 5.87 Cr.</p> <p>For Startups* (recognized by Department of Industrial policy and promotion, Ministry of Commerce and Industry), the bidder should have completed in last three financial years plus current year upto the date of opening of tender:</p> <p>Single order of similar work# for an amount Rs. 6.85 Cr., or Two orders of similar work# for an amount Rs. 3.91 Cr., or Three orders of similar work# for an amount Rs. 2.93 Cr.</p> <p>Note: Completion of work should fall in the above period. The bidder shall also furnish work completion/ substantial work completion certificate issued by customer/s for the Purchase Orders/ Work Orders. Substantial completion shall be 80% (value wise) or more works completed under the contract.</p>	<p>Request Suggestion:</p> <p>Note: If NDA is signed between Bidder & Client and Work Order/ Contract cannot be submitted as a proof of work, then Bidder can submit CA certified experience certificate as experience of similar work and bidder can physically show the documents to the respective authorities for authentication.</p>	We have completed one secure ICT infra Tier 3 complied Data Center with MoD. However due to legally binding NDA we are unable to share the documents online.	As per Tender
54	23	CHAPTER-3-A	<p>4. Technical Requirement SOR-A, Item No. 3 (NAS Storage):</p> <p>3. Disk Type</p>	<p>The minimum Required Value for Disk type is SAS, Can bidders offer NAS solution of Higher disk type like SSD or NVMe-SSD</p> <p>Pls confirm if NL-SAS also is accepted as no RPM minimum requirement mentioned for SAS disks</p>		The Bidder may offer SAS or better disk type.
55	23	CHAPTER-3-A	<p>4. Technical Requirement SOR-A, Item No. 3 (NAS Storage):</p> <p>4. Ports Disk</p>	<p>The minimum Iscsi or ethernet port speed asked is 10Gbps, as the networks are fast evolving and moving towards higher port throughputs like 25/40/100Gbps, RAILTEL should atleast ask for higher port speed support from Day-1 on proposed storage for future proofing the purchase as this could become a bottleneck or showstopper and may incur additional cost in future for RAILTEL.</p>		As per Tender.
56	23	CHAPTER-3-A	<p>4. Technical Requirement SOR-A, Item No. 3 (NAS Storage):</p> <p>5. Controllers</p>	<p>Kindly allow Single parity & Dual parity raid protections equivalent to RAID-5 & RAID6 technologies.</p> <p>Request to remove RAID61 as nested raid level is not yet widely adopted RAID level available with All storage OEM's and give a distinct advantage to a particular OEM or inferior server based NAS solution.</p>		Repeated at SI No. 4

SI No	Page No	Chapter No	Tender clause No	Bidders query	Justification/ Reason	RailTel Response
57	27	CHAPTER-3-A	<p>4. Technical Requirement SOR-A, Item No. 5 (Storage Disks):</p> <p>1. The proposed storage disks should be integrated with existing SAN storage installed at RailTel Data Center i.e. Hitachi Vantara E1090.</p>	<p>We understand that this is a named storage upgrade, but can the bidder offer new Storage system with similar capabilities and capacity asked in the RFP technical specs for Storage Disks. This will allow wider participation and competitive pricing for RAILTEL in Storage landscape. Requesting RAILTEL to allow other OEM solutions also to participate in this landscape.</p>		<p>Since it is the expansion of our existing SAN storage deployed at DC and DR, bidder can propose any OEMs disk which is certified with our existing storage OEM for compatibility. In case any bidder is proposing a new storage solution, bidder has to provide the storage capacity at DC and DR asked in the tender and current capacity (620 TB at DC and 620 TB at DR) of the storage deployed at RailTel DC and DR.</p>
58	27	CHAPTER-3-A	<p>4. Technical Requirement SOR-A, Item No. 5 (Storage Disks):</p> <p>2. The Proposed storage disks must be compatible with existing SAN storage installed at RailTel Data Center i.e. Hitachi Vantara E1090, the same should be certify by existing OEM i.e. Hitachi Vantara.</p>			
59	27	CHAPTER-3-A	<p>4. Technical Requirement SOR-A, Item No. 5 (Storage Disks):</p> <p>6. Bidder has to configure the provisioned storage disks in existing pool and in new pool as per RailTel requirement.</p>			
60	28	CHAPTER-3-A	<p>SOR-A, Item No. 6 (PAM Solution):</p> <p>3 The proposed solution should support on-prem implementation for 200 users and there will be no restriction on no. of devices. Bidder needs to supply all necessary license including Microsoft RDS CAL, OS licenses, DB licenses etc. for providing it as a solution.</p>	<p>Request you to change the criteria as below:</p> <p>3. The proposed solution should support on-prem implementation for 200 users and there will be no restriction on no. of devices.</p>	<p>Microsoft Licenses will be the increase the over all TCO cost, so requesting to authority need to include the Ubuntu Licenses and Open DB.</p>	As per Tender
61	28	CHAPTER-3-A	<p>SOR-A, Item No. 6 (PAM Solution):</p> <p>16. The proposed solution should be able to discover and detect windows dependencies like Windows Scheduled accounts, Scheduled tasks accounts, IIS Application pool accounts and automatically onboard them in the vault.</p>	Need to remove this clause, this is the OEM specific	This is belongs to OEM Specific	As per Tender
62	29	CHAPTER-3-A	<p>SOR-A, Item No. 6 (PAM Solution):</p> <p>The proposed solution should be able to manage the passwords of privilege accounts for below target devices: -</p> <ul style="list-style-type: none"> - OS accounts (all Flavors) - Windows local and domain account - Unix admin accounts and SSH keys <p>- Databases (with clients like Toad, SQL Plus, SQL Server Management Studio and more)</p> <ul style="list-style-type: none"> - Network and Security devices - Admin web console for applications <ul style="list-style-type: none"> - Cloud resources - Cloud console and access keys 	To integrate PAM with Automation solution, We expect the PAM to expose REST API?	To have proper integration in place.	As per Tender

SI No	Page No	Chapter No	Tender clause No	Bidders query	Justification/ Reason	RailTel Response
63	27	CHAPTER-3-A	SOR-A, Item No. 50 (DC Automation Platform): Bidder has to submit the technical solution document including design, architecture, flow, virtual machine requirement, software's, license, OS etc. RailTel shall provide required virtual machines at DC and DR to deploy the solution however bidder has to provide all software's, licenses, Operating Systems etc. required to implement the proposed DC Automation Platform Solution at both DC and DR without any additional cost to RailTel.	Please clarify, if Automation platform would be installed as PROD environment only? Or Is there any requirement to have DEV set-up as well for the same?	For better clarity	Production environment at both DC and DR is required as per Tender requirement.
64	25	CHAPTER-3-A	SOR-A, Item No. 25 (DC Automation Platform):The Offered software should able to cache isolated node facts	We request you to please rephrase the clause as: "The Offered software should able to cache node facts"	To keep the clause generic and wider participation.	As per Corrigendum-III
65	25	CHAPTER-3-A	SOR-A, Item No. 27 (DC Automation Platform):Proposed solution should come in Highly Available deployable configuration to Automate logical endpoints like FW, LB, Linux, Windows, Storage, Servers etc	We request you to please re-phrase the clause as: Proposed solution should come in Highly Available deployable configuration of Execution plane to Automate logical endpoints like FW, LB, Linux, Windows, Storage, Servers etc.	To consider the critical aspect of Execution plane and RailTel environment.	As per Tender
66	24	CHAPTER-3-A	SOR-A, Item No. 6 (DC Automation Platform):The software should have defined playbook for doing repeated tasks in automated manner, List of playbooks/activities needs to be created shall be given by RailTel at the time of deployment, bidder/OEM has to create playbooks as per the requirement of RailTel.	We request you to please highlight the RailTel requirements for the playbooks/activities (Use Cases to be implemented) which would help us to size the appropriate efforts for the implementation of the same.	To appropriate size the efforts.	As per Corrigendum-III
67	24	CHAPTER-3-A	SOR-A, Item No. 4 (DC Automation Platform):The automation software should support Multi-tier Orchestration and Multihoming i.e. configuration of multiple VLANs.	We request you to please re-phrase the clause as below : "The automation software should support Multi-tier Orchestration and configuration of multiple VLANs."	For better clarity and compliance.	As per Tender
68	27	CHAPTER-3-A	SOR-A, Item No. 50 (DC Automation Platform):Bidder has to submit the technical solution document including design, architecture, flow, virtual machine requirement, software's, license, OS etc. RailTel shall provide required virtual machines at DC and DR to deploy the solution however bidder has to provide all software's, licenses, Operating Systems etc. required to implement the proposed DC Automation Platform Solution at both DC and DR without any additional cost to RailTel.	As per this clause, We understand that Automation platform would be deployed on both DC and DR site. Please correct our understanding if it has to deploy only on DC.	For better clarity and scope understanding.	As per Tender
69	27	CHAPTER-3-A	SOR-A, Item No. 52 (DC Automation Platform):RailTel may ask to showcase (PoC) for all the above features to comply with technical specs asked if required.	Is there any specific requirement on PoC? Or Would it be demonstration of the product/platform capabilities?	For better clarity and scope understanding.	As per Tender
70	43	CHAPTER-4	6. Performance Bank Guarantee (Security Deposit): The successful bidder has to furnish security deposit in the form of Performance Bank guarantee @ 10 % of issued PO/ LOA value	We request you to consider Performance Bank Guarantee (Security Deposit) for a value equivalent to 5% of the PO/LOA value. Other condition of PBG will remain same.		As per Tender.

SI No	Page No	Chapter No	Tender clause No	Bidders query	Justification/ Reason	RailTel Response
71	53	CHAPTER-4	21.1. Local Content: i. Only Class-I local suppliers (meeting minimum 50% local content) & Class-II local suppliers (meeting minimum 20% local content) are eligible to participate in this tender.	Request you to remove this clause	As there are many leading solutions in PAM used worldwide and in India which have presence in the Gartner report as well and this clause makes them ineligible to participate.	As per Tender.
72	3	Open E-Tender Notice	e) Earnest Money (EMD)# Rs. 20,00,000/- to be made in favor of RailTel Corporation of India Ltd. online through e-nivida Portal.	We request you to also consider the EMD in the form of Bank Guarantee.		As per Tender.
73	22	Storage Type	Unified Storage	Modification required: Unified Storage/ Storage with Redundant File Gateways.	Unified is a OEM specific terminology and as this is a NAS requirement , request you to ammend this clause accordingly for wider participation.	Repeated at SI No. 3
74	23	RAID Level Support	RAID 5, RAID 6, RAID 61	Modification required: RAID 5/ RAID 6/RAID 61	Request you to modify this clause for wider participation	Repeated at SI No. 4
75	23	SOR-A, Item No. 3 (NAS Storage):	Solution should have capabilities to add NAS/Gateway/File serving node in active-active architecture for CIFS and NFS connections.	Modification required: Solution should have capabilities to add NAS/Gateway/File serving node in Redundantarchitecture for CIFS and NFS connections.	Request you to modify this clause for wider participation	Repeated at SI No. 5
76	24	SOR-A, Item No. 3 (NAS Storage):	The NAS/Gateway/File serving node should be purpose-built appliance and should not be a host based or running on general purpose OS or a simple SMB/NFS configured file server.	Modification required: The NAS/Gateway/File serving node should be appliance which should have capability to run file services.	Kindly modify this clause for wider participation.	Repeated at SI No. 6
77	24	SOR-A, Item No. 3 (NAS Storage):	Proposed NAS system should have purpose-built hardware acceleration through specialized hardware such as FPGA for superior performance.	Modification required: Proposed NAS system should have purpose-built hardware acceleration for superior performance.	Every OEM has its own architecture, request you to modify this clause for wider participation.	Repeated at SI No. 7
78	24	SOR-A, Item No. 3 (NAS Storage):	Proposed NAS system should have the capability to tier data to an Object Storage or Cloud natively.	Modification required: Proposed NAS system should have the capability to tier/replicate data to an Object Storage or Cloud natively.	Every OEM has its own architecture, request you to modify this clause for wider participation.	Repeated at SI No. 8
79	27	Chapter 3 -A Scope of Work & Technical Requirement.	SOR-A, Item No. 5 (Storage Disks):clause#10	Please change the 3 years warranty to co-terminus as it is upgrade of existing storage system.	Upgrade are usually co-terminus with the product warranty. Kindly change the warranty from 3 years to co-terminus.	In case bidder is proposing disks of existing Storage system then warranty shall be co-terminus, else warranty shall be of 3 years and enterprise level support.
80	27	Chapter 3 -A Scope of Work & Technical Requirement.	SOR-A, Item No. 5 (Storage Disks):clause#10 i)	Please provide the details of cloud storage for volume migration, like model, storage type, supported protocols etc.	These details will help in capturing & validation of the process for required migration.	As per tender
81	27	Chapter 3 -A Scope of Work & Technical Requirement.	SOR-A, Item No. 5 (Storage Disks):clause#10 ii)	Please provide the details of cloud storage for volume migration, like model, storage type, supported protocols etc.	These details will help in provisioning the right Professional services for deployment.	As per tender
82	27	Chapter 3 -A Scope of Work & Technical Requirement.	SOR-A, Item No. 5 (Storage Disks):clause#10 iii)	Please share number of hosts (physical and cirtual) to be integrated with storage for volume provisioning etc at both the sites.	These details will help in provisioning the right Professional services for deployment.	As per tender
83	16	3-A	4.4 Memory Slots	Request to change the memory speed from 3200MT/s to 5600MT/s and DDR4 to DDR5.	Railtel being a technology adopter always chosen a latest technology and asked changes are inline with latest technology trend.	Repeated at SI No. 9
84	16	3-A	4.5 Memory Configured	Request to change the memory speed from 3200MT/s to 5600MT/s	Railtel being a technology adopter always chosen a latest technology and asked changes are inline with latest technology trend.	Repeated at SI No. 10
85	16	3-A	7 Raid Controller	12Gbps PCIe 3.0 with RAID 1, 5, 6,10 with at least 8 GB cache	Asked usable capacity fairly high so to get an optimal performance for this kind of heavy storage server cache on controller should be high.	Repeated at SI No. 11
86	16	3-A	9 I/O Slots	Up to 8x PCIe Gen5.0 x16 Slots	PCIe 5.0 is latest technology and to harness the power of latest CPU platform pcie lanes should work at higher speed.	Repeated at SI No. 12

SI No	Page No	Chapter No	Tender clause No	Bidders query	Justification/ Reason	RailTel Response
87	16	3-A	18 Server Security	Secure erase should be single click Secure Erase designed to decommission/repurpose servers.	In matters of security Railtel should consider best features available. It is important from lifecycle management perspective that all identifiable data is deleted in unrecoverable manner. In case not having single click will involve manual processes which is prone to human error and some steps may get skipped and pose security threat.	Repeated at SI No. 13
88	16	3-A	19 Additional	We assume external storage is same which is asked in this tender not the existing one. If this integration is required for existing external storage then details of that storage will be required.		Repeated at SI No. 14
89	16	3-A	4 Memory Slots	Request to change the clause: 32 DDR4 DIMM slots RDIMMS supporting speeds at least 5200 MT/s or better	Railtel being a technology adopter always chosen a latest technology and asked changes are inline with latest technology trend. Also LR DIMM is dying technology and with latest generation server LR DIMMS are not supported hence requesting this change. Request to change the clause: 32 DDR4 DIMM slots RDIMMS supporting speeds at least 5200 MT/s or better.	Repeated at SI No. 9
90	16	3-A	5 Memory Configured	Request to change the clause: Configured with 12 nos. 128 GB or 24 nos. 64GB RDIMM 5200MT/s.	Railtel being a technology adopter always chosen a latest technology and asked changes are inline with latest technology trend. Request to change the clause: Configured with 12 nos. 128 GB or 24 nos. 64GB RDIMM 5200MT/s.	Repeated at SI No. 16
91	16	3-A	6 Disks supported	Request to change the clause: Front drive bays: Up to 12x 3.5/2.5" SAS/SATA/SSD	To offer 80TB storage, higher capacity SSD's are required which are not supported with 3.5 Inch drive bays. This is a restrictive clause hence request to relax this clause for wider participation. Request to change the clause: Front drive bays: Up to 12x 3.5/2.5" SAS/SATA/SSD	Repeated at SI No. 17
92	16	3-A	7 Raid Controller	Request to change the clause: 12Gbps PCIe 3.0 with RAID 1, 5, 6,10 with at least 8GB cache or better and 32 Gbps HBA Card populated from Day-1	80TB capacity is high and to control this much capacity controller with higher cache is required to meet the performance needs else latency may incur and degrade the overall application performance. Request to change the clause: 12Gbps PCIe 3.0 with RAID 1, 5, 6,10 with at least 8GB cache or better and 32 Gbps HBA Card populated from Day-1	Repeated at SI No. 18
93	16	3-A	8 Disk Configured	At least 2 nos. of 960 GB flash drive/read intensive SSDSATA / M.2 drives in mirrored configuration for OS. Usable storage of at-least 80 TB SAS SSD populated from day-1	Usable capacity can be determined after considering RAID hence request you to please specify the RAID level to arrive at right usable capacity.	Repeated at SI No. 19

SI No	Page No	Chapter No	Tender clause No	Bidders query	Justification/ Reason	RailTel Response
94	16	3-A	9 I/O Slots	Request to change the Clause: 8x PCIe Gen5.0 x16 Slots	Railtel has always been adopting latest technology and same is being mentioned in CPU clause and same should be followed for PCIe slots. Not specifying PCIe 5.0 would be defeating the goal of extracting benefits of Gen4 CPU based systems. Please note PCIe 4.0 slot has max. bandwidth of 16GT/s while PCIe 5.0 would have double bandwidth of pcie 4.0. PCIe 5.0 provide additional PCIe lanes for direct access to CPU lanes for GPU and SSD/NVME drives. Request you to consider PCIe5.0 based slot to realize performance benefits & investment return of latest generation PCIe technology being offered by both Intel and AMD based system. To have best utilization of invest being made and performance PCIe slots should be of x16 bus width. Request to modify the clause as "Minimum of 7 Nos of PCIe 5.0 x16 bus width based slots supporting Ethernet/ FC adapters." Request to change the clause: 8x PCIe Gen5.0 x16 Slots	Repeated at SI No. 12
95	17	3-A	18 Server Security	Requet to change the clause: Single click Secure Erase designed to decommission/repurpose servers.	In matters of security Railtel should consider best features available. It is important from lifecycle management perspective that all identifiable data is deleted in unrecoverable manner. In case not having single click will invlove manual processes which is prone to human error and some steps may get skipped and pose security threat. Request to change the clause: Single click Secure Erase designed to decommission/repurpose servers.	Repeated at SI No. 13
96	17	3-A	18 Server Security	Request to add this Point: Should have dashboard for firmware baselines while performing minimum required firmware checks and highlighting out-of-compliance devices for updates with the selected firmware baseline Major attachks are ahappening thorgh firmware hence its imortant to secure the firmware. which is impeactical attain via manual process.	This feature can help in managing the firmware & compliances better. Request to add this Point: Should have dashboard for firmware baselines while performing minimum required firmware checks and highlighting out-of-compliance devices for updates with the selected firmware baseline Major attachks are ahappening thorgh firmware hence its imortant to secure the firmware. which is impeactical attain via manual process.	Repeated at SI No. 22
97	17	3-A	18 Server Security	Hardware Root of Trust Request to add this point in clause: FIPS 140-2, TPM 1.2/2.0,and NIST SP 800-147 ("BIOS Integrity Measurement Guidelines") should be available.	Security is paramount and to make the server secure requesting this change along with hardware root of trust. Request to add this point in clause: FIPS 140-2, TPM 1.2/2.0,and NIST SP 800-147 ("BIOS Integrity Measurement Guidelines") should be available.	Repeated at SI No. 23
98	Page 28 of 82	Clause no 12	SOR-A, Item No. 6 (PAM Solution)	The proposed OEM solution should have capability for securing end-points, securing cloud, workforce lifecycle management, securing devops, etc as a pre-integrated but loosely coupled solution for easy administration from future projects around identity security	What is the scope of securing DevOps mentioned in this point? DevOps is generally a separate requirement and does not come under Privilege Vault solution, suggestion is to remove this as it is out of scope for the Vault solution. Or clarify if this needs to covered with addition of DevOps module	As per Tender
99	Page 30 of 82	Clause no 41	SOR-A, Item No. 6 (PAM Solution)	The proposed solution should support MFA that can be utilized for endpoints and laptop security and authentication	This falls out of the scope for a PAM solution, this can be addressed using native capabilities of laptop/endpoint device. PAM solution's MFA is for privilege users activities but do not cover device security. Suggestion is to remove this point	As per Tender

SI No	Page No	Chapter No	Tender clause No	Bidders query	Justification/ Reason	RailTel Response
100			SOR-A, Item No. 6 (PAM Solution)		Would need details like number of admin/privilege users, number of devices, number of Data centers, their locations etc for BoQ and sizing	As per Tender
101	29	3-A,SOR-A, Item No. 6 (PAM Solution):	The proposed solution should be able to manage the passwords of privilege accounts for below target devices: - - OS accounts (all Flavors) - Windows local and domain account - Unix admin accounts and SSH keys - Databases (with clients like Toad, SQL Plus, SQL Server Management Studio and more) - Network and Security devices - Admin web console for applications - Cloud resources - Cloud console and access keys	To integrate PAM with Automation solution, We expect the PAM to expose REST API?	To have proper integration in place.	Repeated at SI No. 62
102	27	SOR-A, Item No. 50 (DC Automation Platform):	Bidder has to submit the technical solution document including design, architecture, flow, virtual machine requirement, software's, license, OS etc. RailTel shall provide required virtual machines at DC and DR to deploy the solution however bidder has to provide all software's, licenses, Operating Systems etc. required to implement the proposed DC Automation Platform Solution at both DC and DR without any additional cost to RailTel.	Please clarify, if Automation platform would be installed as PROD environment only? Or Is there any requirement to have DEV set-up as well for the same?	For better clarity	Repeated at SI No. 63
103	25	SOR-A, Item No. 25 (DC Automation Platform):	The Offered software should able to cache isolated node facts	We request you to please rephrase the clause as: "The Offered software should able to cache node facts"	To keep the clause generic and wider participation.	Repeated at SI No. 64
104	25	SOR-A, Item No. 27 (DC Automation Platform):	Proposed solution should come in Highly Available deployable configuration to Automate logical endpoints like FW, LB, Linux, Windows, Storage, Servers etc	We request you to please re-phrase the clause as: Proposed solution should come in Highly Available deployable configuration of Execution plane to Automate logical endpoints like FW, LB, Linux, Windows, Storage, Servers etc.	To consider the critical aspect of Execution plane and RailTel environment.	Repeated at SI No. 65
105	24	SOR-A, Item No. 6 (DC Automation Platform):	The software should have defined playbook for doing repeated tasks in automated manner, List of playbooks/activities needs to be created shall be given by RailTel at the time of deployment, bidder/OEM has to create playbooks as per the requirement of RailTel.	We request you to please highlight the RailTel requirements for the playbooks/activities (Use Cases to be implemented) which would help us to size the appropriate efforts for the implementation of the same.	To appropriate size the efforts.	Repeated at SI No. 66
106	24	SOR-A, Item No. 4 (DC Automation Platform):	The automation software should support Multi-tier Orchestration and Multihoming i.e. configuration of multiple VLANs.	We request you to please re-phrase the clause as below : "The automation software should support Multi-tier Orchestration and configuration of multiple VLANs."	For better clarity and compliance.	Repeated at SI No. 67
107	27	SOR-A, Item No. 50 (DC Automation Platform):	Bidder has to submit the technical solution document including design, architecture, flow, virtual machine requirement, software's, license, OS etc. RailTel shall provide required virtual machines at DC and DR to deploy the solution however bidder has to provide all software's, licenses, Operating Systems etc. required to implement the proposed DC Automation Platform Solution at both DC and DR without any additional cost to RailTel.	As per this clause, We understand that Automation platform would be deployed on both DC and DR site. Please correct our understanding if it has to deploy only on DC.	For better clarity and scope understanding.	Repeated at SI No. 68

SI No	Page No	Chapter No	Tender clause No	Bidders query	Justification/ Reason	RailTel Response
108	27	SOR-A, Item No. 52 (DC Automation Platform):	RailTel may ask to showcase (PoC) for all the above features to comply with technical specs asked if required.	Is there any specific requirement on PoC? Or Would it be demonstration of the product/platform capabilities?	For better clarity and scope understanding.	Repeated at SI No. 69
109	22	Storage Type	Unified Storage	Modification required: Unified Storage/ Storage with Redundant File Gateways.	Unified is a OEM specific terminology and as this is a NAS requirement , request you to ammend this clause accordingly for wider participation.	Repeated at SI No. 3
110	23	RAID Level Support	RAID 5, RAID 6, RAID 61	Modification required: RAID 5/ RAID 6/RAID 61	Request you to modify this clause for wider participation	Repeated at SI No. 4
111	23	SOR-A, Item No. 3 (NAS Storage):	Solution should have capabilities to add NAS/Gateway/File serving node in active-active architecture for CIFS and NFS connections.	Modification required: Solution should have capabilities to add NAS/Gateway/File serving node in Redundant architecture for CIFS and NFS connections.	Request you to modify this clause for wider participation	Repeated at SI No. 5
112	24	SOR-A, Item No. 3 (NAS Storage):	The NAS/Gateway/File serving node should be purpose-built appliance and should not be a host based or running on general purpose OS or a simple SMB/NFS configured file server.	Modification required: The NAS/Gateway/File serving node should be appliance which should have capability to run file services.	Kindly modify this clause for wider participation.	Repeated at SI No. 6
113	24	SOR-A, Item No. 3 (NAS Storage):	Proposed NAS system should have purpose-built hardware acceleration through specialized hardware such as FPGA for superior performance.	Modification required: Proposed NAS system should have purpose-built hardware acceleration for superior performance.	Every OEM has its own architecture, request you to modify this clause for wider participation.	Repeated at SI No. 7
114	24	SOR-A, Item No. 3 (NAS Storage):	Proposed NAS system should have the capability to tier data to an Object Storage or Cloud natively.	Modification required: Proposed NAS system should have the capability to tier/replicate data to an Object Storage or Cloud natively.	Every OEM has its own architecture, request you to modify this clause for wider participation.	Repeated at SI No. 8
115	Bid Document Page 17- 4. Technical Requirement- Server	Technical Requirement- SOR-A, Item No. 1 (Rack Server):-Certification and compliances	Certification and compliances -Microsoft Windows Server, Hyper-V, VMWare, Nutanix, Redhat Open Stack Cloud, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES) etc.	Certification required for any 5 out of 7 application OEM and compliances required for all 7 form Server OEM-Microsoft Windows Server, Hyper-V, VMWare, Nutanix, Redhat Open Stack Cloud, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES) etc.	As department has asked latest Generation Processor/CPU for servers but latest Generation Processor/CPU -5th & 6th are very recently launched and because of that all the mentioned OS & HCI certification is not possible to provide because certification process on newly launched CPU takes time. But even though server OEM may give compliant certificate for mentioned OS & HCI software on server OEM latter head that their quoted server models are fully complaint for mentioned OS & HCI software. Hope this may suffice department's requirement.therefore we hereby request to department kindly amend this clause.	As per Tender
116	Bid Document Page 17- 4. Technical Requirement- Server	Technical Requirement- SOR-A, Item No. 1 (Rack Server):-Certification and compliances	6. Disks supported: Front drive bays: Up to 12x 3.5" SAS/SATA/SSD	6. Disks supported: Front drive bays: Up to 12x 2.5" SAS/SATA/SSD	As asked SSD Disk comes in 2.5" Form factor, so server disk bays should be in 2.5" form factor.	Repeated at SI No. 17
117	Bid Document Page 23- 4. Technical Requirement- Storage	Technical Requirement- SOR-A, Item No. 3 (NAS Storage):	5.Controllers-RAID Level Support-RAID 5, RAID 6, RAID 61	5.Controllers-RAID Level Support-RAID 5, RAID 6, RAID 60	its seems typo error ,we hereby request to dept kindly amend the same as requested.	Repeated at SI No. 4

SI No	Page No	Chapter No	Tender clause No	Bidders query	Justification/ Reason	RailTel Response
118	Bid Document Page 2- 4. Technical Requirement-Storage	Technical Requirement-SOR-A, Item No. 3 (NAS Storage):	21.Proposed NAS system should have purpose-built hardware acceleration through specialized hardware such as FPGA for superior performance	Request to Omit .	Requested to omit this point as FPGA is not meant for Storage Solutions. The performance of Storage can be enhanced by adding High Speed Drives (Flash drives etc.) and clustering appliances / storage nodes	As per Tender
119	Bid Document Page 17- 4. Technical Requirement Server	Technical Requirement-SOR-A, Item No. 1 (Rack Server):-Certification and compliances	Certification and compliances -Microsoft Windows Server, Hyper-V, VMWare, Nutanix, Redhat Open Stack Cloud, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES) etc	Certification required for any 5 out of 7 application OEM and compliances required for all 7 form Server OEM-Microsoft Windows Server, Hyper-V, VMWare, Nutanix, Redhat Open Stack Cloud, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES) etc.	As department has asked latest Generation Processor/CPU for servers but latest Generation Processor/CPU -5th & 6th are very recently launched and because of that all the mentioned OS & HCI certification is not possible to provide because certification process on newly launched CPU takes time. But even though server OEM may give compliant certificate for mentioned OS & HCI software on server OEM latter head that their quoted server models are fully complaint for mentioned OS & HCI software. Hope this may suffice department's requirement.therefore we hereby request to department kindly amend this clause.	Repeated at SI No. 119
120	Bid Document Page 23- 4. Technical Requirement	Technical Requirement-SOR-A, Item No. 3 (NAS Storage):	5.Controllers-RAID Level Support-RAID 5, RAID 6, RAID 61	5.Controllers-RAID Level Support-RAID 5, RAID 6, RAID 60	its seems typo error ,we hereby request to dept kindly amend the same as requested.	Repeated at SI No. 4
121	Bid Document Page 2- 4. Technical Requirement	Technical Requirement-SOR-A, Item No. 3 (NAS Storage):	21.Proposed NAS system should have purpose-built hardware acceleration through specialized hardware such as FPGA for superior performance	Request to Omit	Requested to omit this point as FPGA is not meant for Storage Solutions. The performance of Storage can be enhanced by adding High Speed Drives (Flash drives etc.) and clustering appliances / storage nodes	Repeated at SI No. 7
122	Bid Document Page 17- 4. Technical Requirement Server	Technical Requirement-SOR-A, Item No. 1 (Rack Server):-Certification and compliances	Certification and compliances -Microsoft Windows Server, Hyper-V, VMWare, Nutanix, Redhat Open Stack Cloud, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES) etc.	Certification required for any 5 out of 7 application OEM and compliances required for all 7 form Server OEM-Microsoft Windows Server, Hyper-V, VMWare, Nutanix, Redhat Open Stack Cloud, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES) etc.	As department has asked latest Generation Processor/CPU for servers but latest Generation Processor/CPU -5th & 6th are very recently launched and because of that all the mentioned OS & HCI certification is not possible to provide because certification process on newly launched CPU takes time. But even though server OEM may give compliant certificate for mentioned OS & HCI software on server OEM latter head that their quoted server models are fully complaint for mentioned OS & HCI software. Hope this may suffice department's requirement.therefore we hereby request to department kindly amend this clause.	Repeated at SI No. 115
123	Bid Document Page 17- 4. Technical Requirement-Server	Technical Requirement-SOR-A, Item No. 1 (Rack Server):-Certification and compliances	6. Disks supported: Front drive bays: Up to 12x 3.5" SAS/SATA/SSD	6. Disks supported: Front drive bays: Up to 12x 2.5" SAS/SATA/SSD	As asked SSD Disk comes in 2.5" Form factor, so server disk bays should be in 2.5" form factor.	Repeated at SI No. 17
124	Bid Document Page 23- 4. Technical Requirement-Storage	Technical Requirement-SOR-A, Item No. 3 (NAS Storage):	5.Controllers-RAID Level Support-RAID 5, RAID 6, RAID 61	5.Controllers-RAID Level Support-RAID 5, RAID 6, RAID 60	its seems typo error ,we hereby request to dept kindly amend the same as requested.	Repeated at SI No. 4

SI No	Page No	Chapter No	Tender clause No	Bidders query	Justification/ Reason	RailTel Response
125	Bid Document Page 2- 4. Technical Requirement- Storage	Technical Requirement- SOR-A, Item No. 3 (NAS Storage):	21. Proposed NAS system should have purpose-built hardware acceleration through specialized hardware such as FPGA for superior performance	Request to Omit .	Requested to omit this point as FPGA is not meant for Storage Solutions. The performance of Storage can be enhanced by adding High Speed Drives (Flash drives etc.) and clustering appliances / storage nodes	Repeated at SI No. 7
126	53	21	21.1	Only Class-I local suppliers (meeting minimum 50% local content) & Class-II local suppliers (meeting minimum 20% local content) are eligible to participate in this tender.	Request that this clause should be removed as it eliminates all the Leading PAM Solution providers to participate because of this clause	As per Tender.
127	13	2A Clause no. 13.1.3	After opening the financial bids, the tendering department shall schedule the start of reverse auction. The tenderers who are eligible for the participation in the reverse auction process can view the reverse auction catalogue by logging into their e-portal account.	As this is small value turnkey tender, request you to please delete clauses related to Reverse Auction.	Request for change due to small value tender.	As per Tender.
128	42	4 Clause no. 5	<p>Payment Terms.</p> <p>5.1) Payment shall be made in Indian Currency (Rs.) 75% payment of the value of the supply items would be made on receipt of material by the consignee</p> <p>5.2) 15% payment of the value of Supply items of the PO shall be made by RailTel on successfully Installation & Commissioning at site based on SAT Report issued by RailTel DC Team, 5% payment of value of Supply items of the PO on issue of Provisional Acceptance Certificate (PAC) and the last 5% payment of the value of Supply items of the PO shall be made by RailTel on issue of Final Acceptance Certificate (FAC)</p> <p>20% payment of value of supply items</p>	<p>As single price is asked for 'Supply and Installation & Commissioning of Items', we understand the phrases 'the value of the supply items' in this clause should be read as 'the value of the supply items' only.</p> <p>Please confirm.</p>	Clarifications required for better understanding of Payment Terms	As per Corrigendum-III
129	46	4, Clause no. 12.1.1(3) Technical Capability	<p><u>Eligibility Criteria Requirements</u></p> <p>The tenderer must have successfully completed any of the following during last 07 (seven) years, ending last day of month previous to the one in which tender is invited:</p> <p>One similar work# each costing not less than the amount Rs. 11.75 Cr, or Two similar works# each costing not less than the amount Rs. 7.83 Cr., or Three similar works# each costing not less than the amount Rs. 5.87 Cr.....</p> <p><u>Supporting Document Required</u></p> <p>Completion certificates with Satisfactory working and value of the work completed from the User Organizations is required to be submitted.</p> <p>In case of substantially completed work, certificate from user for bidder share regarding total value of bidders share of work and value of completed work (minimum 80% of total value of bidders share of work) is required to be submitted.</p>	<p>Please note that as per this eligibility criteria - Tenderer must have successfully completed similar work during last 7 years. Even experience of substantially completed work is also accepted subjected to submission of certificate from user.</p> <p>But in supporting documents requirement, tenderer is also instructed to submit satisfactory working certificate which we believe is not required.</p> <p>Request you to please amend the first para under 'supporting document requirement' as follows:-</p> <p><u>Eligibility Criteria Requirements</u> Completion certificates with Satisfactory working and value of the work completed from the User Organizations OR copy of WO along with proof of payment received against execution of work is required to be submitted.</p>	Submission of Satisfactory working certificate is already asked from proposed OEM against one of the eligibility criteria. Hence, tenderer need not to submit Satisfactory Working certificate from End User.	As per Tender.

Sl No	Page No	Chapter No	Tender clause No	Bidders query	Justification/ Reason	RailTel Response
130	27	Chapter 3 -A Scope of Work & Technical Requirement.	SOR-A, Item No. 5 (Storage Disks):clause#10	Please change the 3 years warranty to co-terminus as it is upgrade of existing storage system.	Upgrade are usually co-terminus with the product warranty. Kindly change the warranty from 3 years to co-terminus.	Repeated at Sl No. 79
131	27	Chapter 3 -A Scope of Work & Technical Requirement.	SOR-A, Item No. 5 (Storage Disks):clause#10 i)	Please provide the details of cloud storage for volume migration, like model, storage type, supported protocols etc.	These details will help in capturing & validation of the process for required migration.	Repeated at Sl No. 80
132	27	Chapter 3 -A Scope of Work & Technical Requirement.	SOR-A, Item No. 5 (Storage Disks):clause#10 ii)	Please provide the details of cloud storage for volume migration, like model, storage type, supported protocols etc.	These details will help in provisioning the right Professional services for deployment.	Repeated at Sl No. 81
133	27	Chapter 3 -A Scope of Work & Technical Requirement.	SOR-A, Item No. 5 (Storage Disks):clause#10 iii)	Please share number of hosts (physical and virtual) to be integrated with storage for volume provisioning etc at both the sites.	These details will help in provisioning the right Professional services for deployment.	Repeated at Sl No. 82
134	23	SOR-A, Item No. 3 (NAS Storage):	Controllers, RAID Level Support	Minimum required value: RAID 5, RAID 6, RAID 1 Change required: RAID 5, RAID 6, RAID 1	We understand that RAID-61 is a typing error, since it is not a valid RAID type. Kindly change the same to RAID-1 for wider participation from all the OEMs.	Repeated at Sl No. 4
135	23	SOR-A, Item No. 3 (NAS Storage):	Disk, Disk Type	Minimum required value: SAS Query: Please suggest if SAS 10K Drives are needed or NLSAS (7.2K RPM) Drives are needed for this storage?		As per Tender.
136	22	SOR-A, Item No. 3 (NAS Storage):	Storage Type, Storage should be properly mounted in RailTel's existing Racks, Measurements (42 U) of Rack given below Depth : 860mm (Max fit server) Depth : 720mm (Rail screw to screw) Width : 520mm Height : 2000mm In case bidder is supplying storage that cannot be properly mounted in existing RailTel's rack, Bidder has also to supply required racks in DC.	Minimum required value: Form Factor Rack Storage should be properly mounted in RailTel's existing Racks, Measurements (42 U) of Rack. Storage requirements must meet the below requirements: Depth : 796mm , Width : 520mm or less; Height : 2000mm or less. In case bidder is supplying storage that cannot be properly mounted in existing RailTel's rack, Bidder has also to supply required racks in DC.	The requested depth is not standard as per most of the OEM architecture. Request to please change the depth as requested for wider participation from all the OEMs.	As per Tender
137	23	SOR-A, Item No. 3 (NAS Storage):	18 . Solution should have capabilities to add NAS/Gateway/File serving node in active-active architecture for CIFS and NFS connections.	Modification: Solution should have either have native NAS capabilities within Storage Controllers or should have NAS/Gateway/File serving node in active-active architecture for CIFS and NFS connections.	Each OEM has a different architecture. Some OEMs provide NAS Capability natively within the unified storage, while some OEMs provide NAS capabilities by adding NAS header on top of the SAN Storage. Current specification allows only OEMs with separate NAS header which is inferior architecture, requires separate capacity licenses for NAS and has higher operational requirement like rack space, Power and Cooling etc. hence increases the overall TCO. Request to kindly allow the Unified Storage having inbuilt NAS features, superior architecture and lesser TCO.	Repeated at Sl No. 5

SI No	Page No	Chapter No	Tender clause No	Bidders query	Justification/ Reason	RailTel Response
138	24	SOR-A, Item No. 3 (NAS Storage):	20. The NAS/Gateway/File serving node should be purpose-built appliance and should not be a host based or running on general purpose OS or a simple SMB/NFS configured file server.	Modification: If Unified Storage doesn't have native file capabilities , then NAS/Gateway/File serving node should be purpose-built appliance and should not be a host based or running on general purpose OS or a simple SMB/NFS configured file server.	Each OEM has a different architecture. Some OEMs provide NAS Capability natively within the unified storage, while some OEMs provide NAS capabilities by adding NAS header on top of the SAN Storage. Current specification allows only OEMs with separate NAS header which is inferior architecture, requires separate capacity licenses for NAS and has higher operational requirement like rack space, Power and Cooling etc. hence increases the overall TCO. Request to kindly allow the Unified Storage having inbuilt NAS features, superior architecture and lesser TCO.	Repeated at SI No. 6
139	24	SOR-A, Item No. 3 (NAS Storage):	21. Proposed NAS system should have purpose-built hardware acceleration through specialized hardware such as FPGA for superior performance.	Modification: Request to kindly delete this point.	NAS Headers/Gateways with FPGA is an OEM Specific feature that restricts all the other major Storage OEMs from participation. Request to kindly remove the same for wider participation from all the OEMs.	Repeated at SI No. 7
140	27	SOR-A, Item No. 5 (Storage Disks):	The proposed storage disks should be integrated with existing SAN storage installed at RailTel Data Center i.e. Hitachi Vantara E1090	Modification: The proposed storage disks should be integrated with existing SAN storage installed at RailTel Data Center i.e. Hitachi Vantara E1090 OR in a separate Pool in Storage mentioned in SOR-A, Item No. 3 (NAS Storage)	The requested capacity can be provisioned either in the existing Storage or the new Storage requested mentioned in SOR-A, Item No. 3 (NAS Storage). The current specification allows only one OEM to provide capacity. Request to allow all the OEMs to provide the similar capacity in their storage which shall allow Railtel to have more number of competitive bids.	Repeated at SI no. 57
141	27	SOR-A, Item No. 5 (Storage Disks):	The Proposed storage disks must be compatible with existing SAN storage installed at RailTel Data Center i.e. Hitachi Vantara E1090, the same should be certify by existing OEM i.e. Hitachi Vantara.	Modification: The Proposed storage disks must be compatible with existing SAN storage installed at RailTel Data Center i.e. Hitachi Vantara E1090, the same should be certify by existing OEM i.e. Hitachi Vantara OR in a separate Pool in Storage mentioned in SOR-A, Item No. 3 (NAS Storage)	The requested capacity can be provisioned either in the existing Storage or the new Storage requested mentioned in SOR-A, Item No. 3 (NAS Storage). The current specification allows only one OEM to provide capacity. Request to allow all the OEMs to provide the similar capacity in their storage which shall allow Railtel to have more number of competitive bids.	Repeated at SI no. 57
142	27	SOR-A, Item No. 5 (Storage Disks):	Bidder has to configure the provisioned storage disks in existing pool and in new pool as per RailTel requirement.	Bidder has to configure the provisioned storage disks in existing pool (Hitachi Storage) OR in new pool (New Storage) as per RailTel requirement.	The requested capacity can be provisioned either in the existing Storage or the new Storage requested mentioned in SOR-A, Item No. 3 (NAS Storage). The current specification allows only one OEM to provide capacity. Request to allow all the OEMs to provide the similar capacity in their storage which shall allow Railtel to have more number of competitive bids.	Repeated at SI no. 57
143	27	SOR-A, Item No. 5 (Storage Disks):	Once installation, commissioning and integration is complete, testing of below parameters shall be done by bidder/OEM for smooth working i) Volume migration to and from Hitachi storage pool to Cloud storage. ii) VM migration from Hitachi Pool to cloud storage and vice-versa. iii) VM creation and Volume creation in storage pool. iv) Volume Modification, Volume snapshots, VM creation from snapshots created in Hitachi storage pool. v) Migration dashboard for displaying the status of migration.	Modification: Once installation, commissioning and integration is complete, testing of below parameters shall be done by bidder/OEM for smooth working i) Volume migration to and from storage pool to Cloud storage. ii) VM migration from Pool to cloud storage and vice-versa. iii) VM creation and Volume creation in storage pool. iv) Volume Modification, Volume snapshots, VM creation from snapshots created in storage pool. v) Migration dashboard for displaying the status of migration.	The requested capacity can be provisioned either in the existing Storage or the new Storage requested mentioned in SOR-A, Item No. 3 (NAS Storage). The current specification allows only one OEM to provide capacity. Request to allow all the OEMs to provide the similar capacity in their storage which shall allow Railtel to have more number of competitive bids. Kindly remove the word Hitachi from theb specificatin for wider participation from all the OEMs.	Repeated at SI no. 57

SI No	Page No	Chapter No	Tender clause No	Bidders query	Justification/ Reason	RailTel Response
144	27	SOR-A, Item No. 5 (Storage Disks):	Total Storage Capacity should be a minimum of 1144 TB (Usable Storage) at DC/DR (Distribution of storage between DC/DR shall be informed at the time of issuance of PO). Bidder has to supply required disk enclosures to install the disks in existing Storage.	Modification: Total Storage Capacity should be a minimum of 1144 TB (Usable Storage) at DC/DR (Distribution of storage between DC/DR shall be informed at the time of issuance of PO). Bidder has to supply required disk enclosures to install the disks in existing Storage. In case bidder is providing this capacity in another OEM's NAS Storage (Item No. 3 of this RFP), then bidder has to provide another storage at DR with the same controller specifications as that of DC Storage. The capacity segregation/distribution across DC and DR shall be provided by Railtel	The requested capacity can be provisioned either in the existing Storage or the new Storage requested mentioned in SOR-A, Item No. 3 (NAS Storage). The current specification allows only one OEM to provide capacity. Request to allow all the OEMs to provide the similar capacity in their storage which shall allow Railtel to have more number of competitive bids.	As per Tender
145	27	SOR-A, Item No. 5 (Storage Disks):	RAID solution offered must protect against double-disk failure or better, and must be configured with RAID 5 or 6 or Better	Query: RAID-5 does not support double disk failure. Request to either remove "double disk failure" or "RAID-5" from the specification.		As per Tender
146	16	SOR-A, Item No. 1 (Rack Server):	Form Factor Max. 2U rack mounted with sliding rails. Servers should be properly mounted in RailTel's existing Racks, Measurements (42 U) of Rack given below- Depth: 860mm (Max fit server) Depth: 720mm (Rail screw to screw) Width : 520mm Height: 2000mm In case bidder is supplying servers those cannot be properly mounted in existing RailTel's rack, Bidder has also to supply required racks in DC and DR.	Modification: Max. 2U rack mounted with sliding rails. Servers should be properly mounted in RailTel's existing Racks, Measurements (42 U) of Rack given below- The Server dimensions should meet the below requirements --- Depth: 772.13 mm (with Bezel) Depth: 758.29 mm (without Bezel) Width : 482 mm Height: 86.8 mm In case bidder is supplying servers those cannot be properly mounted in existing RailTel's rack, Bidder has also to supply required racks in DC and DR.		Repeated at SI No. 140
147	16	SOR-A, Item No. 1 (Rack Server):	Memory slots 32 DDR4 DIMM slots RDIMMS & LR DIMMS supporting speeds at least 3200 MT/s or better	Modification: 24 or higher DDR4 DIMM slots RDIMMS & LR DIMMS supporting speeds at least 3200 MT/s or better		Repeated at SI No. 9
148	18	SOR-A, Item No. 2 (Leaf Switch):	Switch should have a minimum 40MB buffer of more.	Switch should have a minimum 32 MB buffer of more.		As per Tender
149	18	SOR-A, Item No. 2 (Leaf Switch):	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.	Switch should have mechanism to classify flows and must have capability to prioritize flows during congestion to avoid packet drop of mission critical traffic.		As per Tender
150	19	SOR-A, Item No. 2 (Leaf Switch):	Switch should integrate and would be part of Existing Fabric (as a Leaf), so that the Data Centre Existing Networking environment can be used seamlessly with following Benefits: 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.	Should be deleted. Existing Supplier should be asked to quote for the Spine Switches and SDN Controller for Same level playing field and Fair evaluation	RailTel to ensure that the Existing DC Fabric to work on the BGP EVPN based open framework for creating Underlay and overlay Fabric	As per Tender
151	19	SOR-A, Item No. 2 (Leaf Switch):	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.	Should be deleted. Existing Supplier should be asked to quote for the Spine Switches and SDN Controller for Same level playing field and Fair evaluation		As per Tender
152	19	SOR-A, Item No. 2 (Leaf Switch):	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.	Should be deleted. Existing Supplier should be asked to quote for the Spine Switches and SDN Controller for Same level playing field and Fair evaluation		As per Tender

SI No	Page No	Chapter No	Tender clause No	Bidders query	Justification/ Reason	RailTel Response
153	19	SOR-A, Item No. 2 (Leaf Switch):	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	Should be deleted. Existing Supplier should be asked to quote for the Spine Switches and SDN Controller for Same level playing field and Fair evaluation		As per Tender
154	20	SOR-A, Item No. 2 (Leaf Switch):	Switch should support MPLS segment routing and VRF route leaking functionality from day 1.	Switch should support VRF route leaking functionality from day 1.		As per Tender
155	20	SOR-A, Item No. 2 (Leaf Switch):	Bidder has to provide Installation, configuration, Management Training in SON Architecture with OEM certification (Advance Level) of at least 5 employees of RailTel.	Bidder has to provide Installation, configuration, Management Training in SDN Architecture with OEM certification (Advance Level) of at least 5 employees of RailTel.		As per Tender
156	23	Chapter-3-A	SOR-A, Item No. 3 (NAS Storage): Controllers, RAID Level Support	Minimum required value: RAID 5, RAID 6, RAID 1 RAID 5, RAID 6, RAID 1	We undersand that RAID-61 is a typing error, since it is not a valid RAID type. Kindly change the same to RAID-1 for wider participation from all the OEMs.	Repeated at SI No. 4
157	23	Chapter-3-A	SOR-A, Item No. 3 (NAS Storage): Disk, Disk Type	Minimum required value: SAS Query: Please suggest if SAS 10K Drives are needed or NLSAS (7.2K RPM) Drives are needed for this storage?		Repeated at SI No. 139
158	16	Chapter-3-A	SOR-A, Item No. 1 (Rack Server): Form Factor Max. 2U rack mounted with sliding rails. Servers should be properly mounted in RailTel's existing Racks, Measurements (42 U) of Rack given below- Depth: 860mm (Max fit server) Depth: 720mm (Rail screw to screw) Width : 520mm Height: 2000mm In case bidder is supplying servers those cannot be properly mounted in existing RailTel's rack, Bidder has also to supply required racks in DC and DR.	Modification: Max. 2U rack mounted with sliding rails. Servers should be properly mounted in RailTel's existing Racks, Measurements (42 U) of Rack given below- The Server dimensions should meet the below requirements --- Depth: 772.13 mm (with Bezel) Depth: 758.29 mm (without Bezel) Width : 482 mm Height: 86.8 mm In case bidder is supplying servers those cannot be properly mounted in existing RailTel's rack, Bidder has also to supply required racks in DC and DR.		Repeated at SI No. 140
159	16	Chapter-3-A	SOR-A, Item No. 1 (Rack Server): Memory slots 32 DDR4 DIMM slots RDIMMS & LR DIMMS supporting speeds at least 3200 MT/s or better	Modification: 24 or higher DDR4 DIMM slots RDIMMS & LR DIMMS supporting speeds at least 3200 MT/s or better		Repeated at SI No. 9
160	18	Chapter-3-A	SOR-A, Item No. 2 (Leaf Switch): Switch should have a minimum 40MB buffer of more.	Switch should have a minimum 32 MB buffer of more.		Repeated at SI No. 151
161	18	Chapter-3-A	SOR-A, Item No. 2 (Leaf Switch): 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	Switch should have mechanism to classify flows and must have capability to prioritize flows during congestion to avoid packet drop of mission critical traffic.		As per Tender
162	19	Chapter-3-A	SOR-A, Item No. 2 (Leaf Switch): Switch should integrate and would be part of Existing Fabric (as a Leaf), so that the Data Centre Existing Networking environment can be used seamlessly with following Benefits: 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.	Should be deleted. Existing Supplier should be asked to quote for the Spine Switches and SDN Controller for Same level playing field and Fair evaluation	RailTel to ensure that the Existing DC Fabric to work on the BGP EVPN based open framework for creating Underlay and overlay Fabric	Repeated at SI No. 154

SI No	Page No	Chapter No	Tender clause No	Bidders query	Justification/ Reason	RailTel Response
163	19	Chapter-3-A	SOR-A, Item No. 2 (Leaf Switch): 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.	Should be deleted. Existing Supplier should be asked to quote for the Spine Switches and SDN Controller for Same level playing field and Fair evaluation		Repeated at SI No. 155
164	19	Chapter-3-A	SOR-A, Item No. 2 (Leaf Switch): 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.	Should be deleted. Existing Supplier should be asked to quote for the Spine Switches and SDN Controller for Same level playing field and Fair evaluation		Repeated at SI No. 156
165	19	Chapter-3-A	SOR-A, Item No. 2 (Leaf Switch): 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	Should be deleted. Existing Supplier should be asked to quote for the Spine Switches and SDN Controller for Same level playing field and Fair evaluation		Repeated at SI No. 157
166	20	Chapter-3-A	SOR-A, Item No. 2 (Leaf Switch): Switch should support MPLS segment routing and VRF route leaking functionality from day 1.	Switch should support VRF route leaking functionality from day 1.		Repeated at SI No. 154
167	20	Chapter-3-A	SOR-A, Item No. 2 (Leaf Switch): Bidder has to provide Installation, configuration, Management Training in SON Architecture with OEM certification (Advance Level) of at least 5 employees of RailTel.	Bidder has to provide Installation, configuration, Management Training in SDN Architecture with OEM certification (Advance Level) of at least 5 employees of RailTel.		Repeated at SI No. 155
168	15	Chapter-3-A	Scope of Work clause 3(i), Backup Bidder has to provision infrastructure e.g., network, security, backup, storage, BCP etc. as per requirement. Configuration and implementation related inputs of DC /DR infrastructure shall be shared with selected bidder.	Query and Required Details: As per the RFP SI need to provision for Backup solution while there are no technical specifications. Please provide the inputs in the attached sheet or Please share the front end backup data size & segregation total XXTB and % for OS, DB, VM & file systems along with version/edition of OS, DB & Virtualization platform. Here we will consider the standard data backup retention policy to retain data in backup appliance or you may suggest the changes. Daily backup for 1 week. Weekly backup for 1 month. Monthly backup for 1 year. Yearly backup for 5 years.	Please provide the details	As per Tender.

Sl No	Page No	Chapter No	Tender clause No	Bidders query	Justification/ Reason	RailTel Response
169	42	CHAPTER 4	<p>Payment Terms, 5. Payment Terms</p> <p>5.1. Payment shall be made in Indian Currency (Rs.) 75% payment of the value of the supply items would be made on receipt of material by the consignee (at site / the stores) duly inspected and on submission of the following documents subject to any deductions or recovery which RailTel may be entitled to make under the contract:</p> <p>i) Tax Invoice (GST) ii) Delivery Challan/e-way bill. iii) Packing list. iv) Factory Test Report/Certified manufacturer Test Report v) Purchaser's Inspection certificate, vi) Consignee receipt vii) Warranty certificate of OEM viii) Insurance certificate ix) Certificates duly signed by the firm certifying that equipment/ materials being delivered are new and conform to technical specification.</p>	<p>5.1. Payment shall be made in Indian Currency (Rs.) 75% payment of the value of the supply items would be made on receipt of material by the consignee (at site / the stores) duly inspected and on submission of the following documents subject to any deductions or recovery which RailTel may be entitled to make under the contract:</p> <p>i) Tax Invoice (GST) ii) Delivery Challan/e-way bill. iii) Packing list. iv) Factory Test Report/Certified manufacturer Test Report v) Purchaser's Inspection certificate, vi) Consignee receipt vii) Warranty certificate of OEM viii) Insurance certificate ix) Certificates duly signed by the firm certifying that equipment/ materials being delivered are new and conform to technical specification.</p>		As per Tender.
170	42	CHAPTER 4	<p>Payment Terms, 5. Payment Terms</p> <p>5.2. 15% payment of the value of Supply items of the PO shall be made by RailTel on successfully Installation & Commissioning at site based on SAT Report issued by RailTel DC Team, 5% payment of value of Supply items of the PO on issue of Provisional Acceptance Certificate (PAC) and the last 5% payment of the value of Supply items of the PO shall be made by RailTel on issue of Final Acceptance Certificate (FAC) which will be issued by Contract Management Authority i.e. GM/ITP/CO.</p> <p>5.3. 20% payment of value of supply items of the PO which could not be installed and commissioned within 120 days for any reason will be made after PAC with approval of Contract Management Authority i.e. GM/ITP/CO and remaining 5% on issue of FAC as per clause 5.2.</p> <p>5.4. RailTel shall make payments after the submission of invoice with required documents as per contract. Accounting/Bill passing unit for SOR for supplies is Corporate Office. All Bills shall be submitted to DGM/ITP/CO for certifying and verification and onwards submission to Finance of RailTel Corporate Office for releasing the payment.</p>	<p>5.2. 15% payment of the value of Supply items of the PO shall be made by RailTel on successfully Installation & Commissioning at site based on SAT Report issued by RailTel DC Team or within 60 days form the date of supply of materials which is earlier, 5% payment of value of Supply items of the PO on issue of Provisional Acceptance Certificate (PAC) and or within 90 days form the date of supply of materials which is earlier the last 5% payment of the value of Supply items of the PO shall be made by RailTel on issue of Final Acceptance Certificate (FAC) or within 120 days form the date of supply of materials which is earlier which will be issued by Contract Management Authority i.e. GM/ITP/CO.</p> <p>5.3. 20% payment of value of supply items of the PO which could not be installed and commissioned within 120 days for any reason will be made after PAC with approval of Contract Management Authority i.e. GM/ITP/CO, and remaining 5% on issue of FAC or reamining 25% within 150 days form the date of supply of materials which is earlier,as per clause 5.2.</p> <p>5.4. RailTel shall make payments after the submission of invoice with required documents as per contract. Accounting/Bill passing unit for SOR for supplies is Corporate Office. All Bills shall be submitted to DGM/ITP/CO for certifying and verification and onwards submission to Finance of RailTel Corporate Office for releasing the payment.5.4. RailTel shall make payments after the submission of invoice with required documents as per contract. Accounting/Bill passing unit for SOR for supplies is Corporate Office. All Bills shall be submitted to DGM/ITP/CO for certifying and verification and onwards</p>		As per Tender.
171	28	3	<p>3. The proposed solution should support on-prem implementation for 200 users and there will be no restriction on no. of devices. Bidder needs to supply all necessary license including Microsoft RDS CAL, OS licenses, DB licenses etc. for providing it as a solution.</p>	<p>Requesting you to please help with a ballpark figure for number of devices to be on-boarded this will help to define the Hardware Sizing.</p> <p>PAM Solution will support unlimited devices, We need the Device count for Sizing hardware for PAM Solution.</p>		Repeated at SI No. 40
172	28	3	<p>10. The proposed solution should support complete active active configuration at all infrastructure components. It should support high availability Vault environment since this is crucial for the Vault availability.</p>	<p>Do we need to propose High Availability in Both DC and DR Site ?</p>		Repeated at SI No. 41

SI No	Page No	Chapter No	Tender clause No	Bidders query	Justification/ Reason	RailTel Response
173	28	3	11. The proposed solution should support Disaster Recovery Site so that should be able to continue functioning without losing any data as a result of the failure.	Do we need to propose High Availability in Both DC and DR Site ?		Repeated at SI No. 42