

**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
RAILWAY BOARD**

No. 2020/Tele Dev/e-office phase-3

Dated: 18 .01.2021

**Chairman & Managing Director,
RailTel Corporation of India Ltd.
Plate A, 6th Floor, Office Block-2,
East Kidwai Nagar, New Delhi- 110023.**

Sub: Detailed estimate for e-Office application for Zonal Railways (Phase-3).

Ref: (i) Railway Board's letter no.2020/Tele Dev/e-Office Phase-3 dtd 08.09.2020

(ii) MoU signed between Indian Railway & RailTel dated 11.11.2020

**(iii) RailTel's letter no. RCIL-CO0PROJ(EOFF)/6/2019 dated 08.12.2020 &
18.12.2020**

(iv) This office letter no 2020/Tele dev/ e-office implementation dtd 10.12.2020

1. Vide letter under reference (i) above, the project "Implementation of e-Office application for Zonal Railways- Phase-3" under PH-17 was allotted to RailTel. Its MoU was signed between Railway Board and RailTel on 11.11.2020.
2. Railtel vide above reference (iii) dtd 18.12.2020, has submitted the detailed estimate for sanctioning.
3. The detailed estimate of the said work submitted by RailTel has been scrutinized by Railway board in view of the optimum utilization of un-utilized hardware provisions in the project of e-Office project under Phase-1 and 2 and in consonance with the applicable deployment guidelines given by the NIC.
4. In order to complete the project of implementation of e-office at all the balance Divisions, workshops, allied offices with Divisions/Zonal Railway offices including audit offices & RRBs, Board (Member (infra) have approved the Detailed Estimate of the project 'Implementation of e-Office application for Zonal Railways (Phase-3)' at a total cost of Rs 22.4236 Cr (Rs Twenty two crore forty two lakh thirty six thousand only) charged to Capital under PH-17 sanctioned vide PB No 242a under NR as a part of the work of "Information Technology related works on Indian Railways" under PH-17 with the following terms & conditions:
 - 4.1 The project will be executed by RailTel in integrated way with Phase-1 & 2.
 - 4.2 The hardware provisions for various instances of e-Office in the said detailed estimate to be used only after it is certified by the competent authority, i.e. project in-charge that un-utilized infrastructure of projects of 'e-Office implementation projects of Phase-1 & Phase-2 has been utilized optimally in all respect and in consonance with the applicable deployment guidelines given by the NIC.

Page 1 of 2

820
18.01.2021

Devi Singh

projects of Phase-1 & Phase-2 has been utilized optimally in all respect and in consonance with the applicable deployment guidelines given by the NIC.

- 4.3 Hardware should be planned for DC & DR sites only as per the NIC guidelines. Any procurement done may be made part of the cloud created under this project at DC & DR.
- 4.4 NIC design may have considered hardware based on the % of the usage for optimal working and further keeping additional % may result into extra hardware. Therefore system should be optimally designed.
5. This issues with the concurrence of Finance Directorate of Ministry of Railways.
Kindly acknowledge the receipt and ensure compliance.

DA: As enclosed

820
18.01.2021

(Umesh Balonda)
Executive Director (Tele Dev)
E-mail: edtd@rb.railnet.gov.in

No. 2020/Tele Dev/e-office phase-3

Dated:18.01.2021

Copy to:

1. PFAs, All Zonal Railways & Production units.
2. Dy. Comptroller & Auditor General of India (Railways), Room No 224, Rail Bhawan, New Delhi.

M. Singh

For Member (Finance)

Copy to:

1. F(X)-II & Budget Branch Railway Board.
2. PCSTEs, All Zonal Railways.

Detailed Estimate for Implementation and operational support of e-office deployment for 30000 users under phase -III

on Indian Railways for 2 years

S.No.	Item Details	Total Cost	Remarks	Linking sheet	Annexure
A	E-Office application -Cost of software and training (Payment to NICSI), includes Product enhancement and maintenance cost, Deployment and core rollout and NIC administrative charges & Training from NIC	1,220,228	NIC Application	NIC Application	A
B	Cost of Data Centre Unified Storage & NAS storage with 3 year support	42,706,240	Storage	Storage(SAN&NAS)	B
C	Cost of Cloud Foundation Software-Including deployment & support	27,565,308	Cloud Software	Server Software	C
D	Cost of Colocation for installation of SAN , NAS , HCI servers and switches , BW at DC & DR and OS/DB management for DC & DR	12,692,862	Colocation of DC infra	Colocation of DC In	D
E	Cost of Setting Up Hyperconvered Infrastructure at DC, DR sites with 3 year support	27,296,000	HCI Infra at DC & DR	HCI Infra at DC & DR	E
F	Cost of supply of DSC with 3 year support	5,810,000	Supply of DSC	DSC requirement	F
G	Cost of Augmentation of LAN (RailNet) for various Railway units including networking	13,867,662	Networking	Networking	G
H	Cost of Man Power for 2 year for DC/DR back end systems	17,726,234	Man power	Man Power	H
I	Cost towards OS,DB & other software licences (RHEL, Microsoft , EDB, SSL etc)	24,525,448	Licences for various softwares	Licence	I
	Sub Total	173,409,982			
	Contingency @1 %	1,734,100			
	Project, Execution and Monitoring(PEM) Charges@ 2%	175,144,082			
	Total with Contingency & PEM Charges	14,887,247			
	Project Management cost @ 8.5 %	190,031,329			
	Grand Total (without GST)	34,205,639			
	GST @18%	224,236,968			
	Grand Total with GST				

882
18.01.2021

(Signature)

NIC application costing with support & Training for additional 30000 users

Sl no	Description	Additional Costing for 30000 (Slab of 50000) users	Rate reference
A1	Product enhancement and maintenance cost [A]	-	e_office Standard Costing Model
A2	Deployment and core rollout[B]	5,70,200	
A3	NIC administrative charges [C=7% of A+B]	39,914	
	Grand total for 5 year [D=A+B+C] + One additional required	1,220,228	

[Signature]
 Assistant RB.

Storage details with 3 year support						
Sl no	Item	nos	Revised Qty	Unit Rate	Amount excl of GST	Reference
B1	Unified storage for block and file services on same set of controllers with Auto Data Tiering & support for following protocols - FC, iSCSI, NFSv3, NFSv4, NFSv4.1, CIFS, SMB 3.0; FTP, SFTP and VVol 2.0, with minimum 100 TB usable. 14 x 3.2 TB SAS-SSD in RAID 5, 11 x 12 TB NL-SAS in RAID 6	nos	2	7,254,000	14,508,000	Quotation received from Ingram Micro India Private Limited dated 13-10-2020
B2	NAS Storage 100 TB with 3 yr support as per Specification	nos	2	3,800,000	7,600,000	Quotation from Hitachi dated 27.11.2019
B3	Veeam Availability suit (includes Veeam Backup Solution Server based for DC and DR) with 5 year support Pack of 10 VM	nos	12	717,905	8,614,860	Quote from Tashae Linux Services
B4	SFP's 40 Gbps	nos	10	15,240	152,400	Quotation from Dell
B5	SFP's 100 Gbps	nos	6	59,821	358,926	Quotation from Dell
B6	Fabric Interconnect Switch for storage to server to Storage	nos	2	2,900,000	5,800,000	PO no 4001910387 dated 26/07/2019
B7	Bulk SMS Solution (C1) @ 0.095P per SMS)	nos	2	950,000	1,900,000	Quotation from Dell
B8	Tape Storage system	nos	2	1,285,000	2,570,000	Quotation from Dell
B9	SAN switches 48 port switches with 24 Licenses , 48 nos 16 Gbps SFP's with 5 year support	nos	2	601,027	1,202,054	PO no 4001910952.1 dated 13-02-2020
Grand Total					42,706,240	

Vmware Cloud Foundation & Site Recovery Manager solution at DC and DR with 3 year support						
S/No	Description	unit	Qty	Rate in Rs	Amount	Ref
1	VMware Cloud Foundation 4 Advanced with Tanzu with 3-Year licence (Per CPU)	nos	4	1,818,029.00	7,272,116	VCF with Professional services and TAM for 1 year (Quotation from M/s SISL dated 13-10-2020)
2	Production Support/Subscription for VMware Cloud Foundation 4 Advanced with 3-Year Tanzu (Per CPU) for 3 years	nos	4			
3	Professional Services Scope of Work tentative - high level indicative only - VCF Customized implementation for the above BoQ only and scope of work specific Container implementation & workflows with DC & DR for the above BoQ only. Scope limited to 10 hosts at each site. Only for 2 sites (Delhi & Secunderabad).	nos	1	3,000,000	3,000,000	As per CO PO 1001919305 dated 11-09-2019, VCF for 24 Servers with 2 proc each (3 servers for Management)
4	VMware Technical Account Manager - Tier 2 for a period of 12 months	nos	0	11,000,000	-	
5	Virtual cloud foundation suit 4 Advanced (Per CPU) with 3 year support	nos	16	1,026,302	16,420,827.00	As per PO no 4001910133 dated 1-06-2019
6	VMware Site Recovery Manager 8 Standard (25 VMI Pack)	nos	1	759,758	759,758	
7	Production Support/Subscription for VMware Site Recovery Manager 8 Standard (25 VM Pack) for 3 years	nos	1			Online price
8	Blue Medora for Server integration (per OSI instance) with 3 year support	nos	10	11,261	112,607	
					27,565,308.10	

Colocation, BW and OS management charges for e-Office deployment

		2	Escalation for 2 nd Year		5%			
Co-Location Charges for 6 KVA (3 KVA + 3 KVA) for 2 years with escalation of 10% YoY and BW charges								
SI No	Data Center Location	Service Specification	UOM	Qty.	Per annum unit rate	1st year charges for full Qty	2nd year charges with 5% escalation	Total charges for 2 Year with 5% escalation
D1	SC-DC	TOTAL CHARGES FOR DC (SC-data centre) for 2 year with escalation of 10%	nos	1	1,073,300	1,073,300	1,126,965	2,200,265
D2	GGN-DC	TOTAL CHARGES FOR DRF GGN data centre)for 2 year with escalation of 10%	nos	1	1,073,300	1,073,300	1,126,965	2,200,265
TOTAL CHARGES FOR 2 YEARS FOR DC & DR for 4 racks								4,400,530

Bandwidth charges at DC, DR and Near DR sites

S.N	Description	UoM	Qty	unit rate (Per annum)	1st year charegs for full Qty	2nd year charges with 5% escalation	Charges for 2 Years .
D3	VLAN Switch Port	nos	8	25,320	202,560	212,688	415,248
D4	UTM port	nos	8	50,640	405,120	425,376	830,496
D5	DR Drill Charges every 6 months in a year	nos	4	500,000	2,000,000	2,100,000	4,100,000
D6	VPN clients supply installation and support	nos	300	2500	750,000	787,500	1,537,500
D7	OS & DB management , DNS , NTP services and Physical Server support	nos	8	85920	687,360	721,728	1,409,088
Total charges							8,292,332
Grand Total for Colocation Switch and UTM ports , DC DR drill ,VPN charges and OS management							12,692,862



Hyperconverged Infrastructure with vSAN for the DC and DR sites

SI no	SKU Description	Unit	Unit Price Rs	Qty	Nos of Sites	Total nos of server	Total Price Rs	Qty	Reference	
E1	Supply of Rack mount server with vSAN certified 1) Intel Xeon Gold 6252 2.1G, 24C/48T, 10.4GT/s, 35.75M Cache, Turbo, HT (150W) DDR4-2933, 2) RAM : 64GB RDIMM 2933MT/s Dual Rank : 16 nos 3) Storage : 3.84TB SSD SAS Mix Use 12Gbps S12e 2.5in Hot-plug Drive, 3.5in HH8 CAR, PM 5-V drive 3 DWPD, 21024 TBW.: 2 nos 4) 10 TB 7.2K RPM/NLSAS 12Gbps S12n 3.5in Hot-plug Hard Drive: 8 nos 5) Dual, Hot-plug, Redundant Power Supply (1+1), 1100W 6) 2U Standard 7) Broadcom 57416 Dual Port 10GbE BASE-T & 5720 Dual Port 1GbE BASE-T, RND 8) Supply and Installation of Leaf Switches 48 port 1/10 G down link ports, 6 nos of 40/100 Uplink,	Nos	3210000	4	2	8	25,680,000.00	44.00	Quotation from Dell dated 10-12-19	
E2	Supply and Installation of Leaf Switches 48 port 1/10 G down link ports, 6 nos of 40/100 Uplink,	Nos	404,000.00	2	2	4	1,616,000.00	8.00	PO no 1002910180.J dated 28/06/19	
Total costing for Supply and Installation of HCI solution at DC and DR								27,296,000.00		

Networking Components with 3 years support

Sl.No	Item Description	Unit	Qty	Unit Rate	Total Amount	Rate Ref
G10	Supply and Installation of Leaf switches 48 port 1/10 G down link ports, 6 nos of 40/100 Uplink.	nos	0	404,000.00	-	PO no 1001910180,0 dated 28/06/19
G2	Supply and Installation of Spine switches, 64 nos of 100G ports, 2 nos of 10 G ports	nos	0	808,000.00	-	PO no 1001910180,0 dated 28/06/19
G3	4x10G MLC for MX (Part Name:MLC-3D-4xGIG-SFP)	nos	0	131486.44	-	PO no 4001910546 dated 17/09/2019
G4	Dual Rate 10G Pluggable Transceiver for 10GbE & OC192, 1310nm for 10 Km Transmission (Part Name: XFP-100-L-OC192-SRL)	nos	0	12277.11	-	
G5	80G Line Card for DUNPER MX960 & MX480 (Part Name: MFC02H (MPCZ-30-NG-R-8)	nos	106	458405.08	1,113,000	PO 4001513690 Dated: 19-01-2018
G6	Supply of Switches L2, POE based	nos	10	324,544.00	3,245,440	Quotation from Norysense 10-09-2019
G7	48 port 1 GbE SFP fiber switch, 3 modular slots for optional uplinks/dialking.	nos	40	3,190.00	127,600	PO 4001513359 Dated: 08-12-2017
G8	Supply of FDWS 24F	nos	106	14,237.28	1,509,152	SEM Contract GEMC511887/485780243 dated 17/
G9	Ruckus R310 Dual-Band 802.11a/b/g/ac (802.11ac Wave 2) Wireless Access Point.	nos	30	9,660.00	288,000	Quotation from Norysense 10-09-2019
G10	Cat 6 UTP 24Port Loaded Patch Panel	nos	100	36,000.00	36,000	Quotation from Norysense 10-09-2019
G11	Cat 6 UTP 24Port Loaded Patch Panel	nos	20	31,500.00	630,000	Quotation from Norysense 10-09-2019
G12	Cable, Copper, Category 6, E2, 4 Pair, Solid, UTP, OSP, Black, Reel,305 Meter	No.	16	52,433.10	943,796	ROL PO no-4002810591, dtd-20-11-2018
G13	Supply of Integrated Service Router cum Firewall with necessary accessory & mounting kit for fitting.	No.	16	11,695.48	304,082	ROL PO no- 2001810336,dtd-25-09-2018
G14	Switch for Access network Edge Core (28 Port, 2x10G Ports & 4x20G Ports) as per technical specification in Annexure-C with 3 SFP-10 KM and warranty of 3 Years included.	nos	2	22,750	45,500	Online price.
G15	Optical Power Meter.	nos	2	2,950	5,900	Online price.
G16	Integrated digital thermo meter.	nos	2	194,286	388,572	Online price.
G17	Digital Megger Earth Clamp Meter	nos	2	18	36	PO 4001512792 dt 11.01.2017
G18	Supply of OFC-announced 12 F	mtrs	30,000	1.865	3,180,000	PO 4001810543 dt 13.11.2018
G19	In campus laying of OFC	nos	120	3,190	382,800	PO 4001810543 dt 13.11.2018
G20	Splicing/termination of 12 F OFC	nos	120	3,830	459,600	PO 40015123359 dt 08.12.2017
G21	Supply of FDWS 24F	nos	30	14,850	445,500	PO 4001513690 Dated: 19-01-2018
G22	Supply of 6 U rack with IUS	nos	30	14,850	445,500	PO 4001513690 Dated: 19-01-2018
G23	Supply of 42 U rack	nos	30	14,850	445,500	PO 4001513690 Dated: 19-01-2018
Grand Total					13,867,662	

Manpower for e-Office Implementation & DC/DR support for 2 year

Sl no	Man power for Data center (SC and GGN)	Qty	Salary per month	Average escalation YOY = 10%		Amount for the period with escalation of 10 % YOY	Reference
				Total for 1st Year	Total for 2nd Year with 10 % escalation		
H1	DBA	2	117237	2813688	3095057	5908745	1001810364 Dated : 12-10-2018
H2	Security Admin	2	117237	2813688	3095057	5908745	
H3	System Admin	1	117237	1406844	1547528	2954372	
H6	Cloud Admin	1	117237	1406844	1547528	2954372	
Grand total						17,726,234	



Costing towards OS,DB,Patch management,automation software licences and Support

S.N	Description	UoM	Qty	Unit cost	Total	Reference
11	Microsoft Windows Server Standard 2019 R2 subscription license 16 core	nos	3	62500	187,500	PO no 4001910852 dated 27-11-2019
12	MS - SQLServerCore 2017 SINGL MVL 2Lic Corelic 2 Core Licenses	nos	6	222560	1,335,360	
13	RHEL 7.5 OS Standard subscriptions(enterprise) for 2 VM for a period of 3 year	nos	4	197,539	770,156	PO no 4001910860 dated 27-11-2019
14	Assest Management and Monitoring with 3 year support	nos	1	9,996,785	9,996,785	Quotation from SISL for BMC tool dated 23-05-2020
15	RHEL for Virtual Data center (Standard support)	nos	6	609,630	3,657,780	Quotation from Tashae Linux dated 14-10-2019
16	EDB PostGre SQL support system for DB servers 3year support	nos	20	60,000	1,200,000	Quotation from Tashae
17	SUSE Manager server licenses	nos	1	1,135,134	1,135,134	
18	SUSE Manager Proxy, x86-64, 1 Instance, Priority Subscription, 3 Year(for DR sites)	nos	1	290,000	290,000	Quotation from Dell for Linux instance management
19	SUSE Manager (Unlimited VM's)	nos	36	61,213	2,203,668	
110	Ansible 100 node license	nos	1	1,949,065	1,949,065	PO no 40020110095 dated 14-05-2020
111	Chat Bot - Supply of perpetual licenses and with 1 year support	nos	1	1,800,000	1,800,000	Quotation from Ptechnosoft dated 15-10-2020
Grand Total					24,525,448	



DSC charges for 35000 users for 3 year

Sl no	Item	units	Qty	Rate	Amount	Reference
F1	Digital signature certificate charges for 3 year (incl. Token charges)	nos	35000	166	5,810,000	4002010091 dated 14/05/2020
	Total		35000		5,810,000	

