GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
(RAILWAY BOARD)

No. 2017/C&IS/Project/DRCEP-IRICEN/19 **New Delhi, Dated: 18. 07.2018**

The General Manager,
Northern Railway,
New Delhi.

Sub:- Sanction for the work of "Setting up of Disaster Recovery (DR) Site for Civil Engineering Projects at IRICEN - Pune".

Ref:-
1. **CRIS's letter No. 2017/CRIS/NDLS-HQ/CC/Project/WorkPrsal/0277/Pt-1 dated 21.09.2017.**
2. **Board's letter No. 2018-B-106 dated 18.06.2018.**
3. **Board's letter No. 2015/C&IS/Project/Executing/32 dated 06.07.2018.**

A new work **"Setting up of Disaster Recovery (DR) Site for Civil Engineering Projects at IRICEN - Pune" under the Pink Book Item No. 229/2018-19 of Northern Railway (Other Information Technology works on Indian Railways)** has been included in the Pink Book of the year 2018-19 as Item No. 229f of Northern Railway at the abstract cost of Rs. 4,46,00,000/- (Rupees four crore and forty six lakh only) under the allocation "DF-3" under the plan Head – 17 (Computerization).

Item-wise break up of cost is appended as "Annexure".

Vinita 18/7/18
(Vinita Nahera)
Director Electronics(C&IS)

Copy to :-

1. **Executive Director/TK(P), Railway Board.**
2. **The FA & CAO, Northern Railway, New Delhi.**
3. **The Chief Commercial Manager, Northern Railway, New Delhi.**
4. **Managing Director, CRIS, Chanakyapuri, New Delhi.**
5. **F(X)-II and Budget Branches of Railway Board.**

Annexure

No. 2017/C&IS/Project/DRCEP-IRICEN/19 New Delhi, Dated: 18.07.2018

Item-Wise break up of cost of the work of "Setting up of Disaster Recovery (DR) Site for Civil Engineering Projects at IRICEN - Pune"

S. No.		Work Item	Qty (Q1)	Rate (R1)	Q1*R1 (In Rs.)
1	**Requirement Analysis and System Development & Integration (Resources)**				
	1.1	Requirement Analysis and System Deployment & Integraion	40		63,90,476
	1.2	Documentation	1		1,20,863
	1.3	Travel for Requirement Gathering & Installation/Commissioning	Lumpsum		2,00,000
	1.4	Project Management Support Cost			12,68,885
	1.5	Transportation of existing servers of TMS to proposed DR Site at IRICEN, Pune	Lumpsum		2,00,000
				Total - Application Software (1)	**81,80,224**
2	**Skills Development (of Resources & Customers) Costs**				
	2.1	Technical & Managerial Skills Development	L/s		2,00,000
				Total - Skills Development(2)	**2,00,000**
3	**System Software Costs**				
	3.1	**System Software for Dev. & Staging**			
	3.1.1	SSL Certificate	2	68,837.00	1,37,674
	3.1.2	Any other utility software like Disaster Recovery Management (DRM) Software	8		38,06,760
	3.1.3	RHEL Server Premium (1-2 Socket) (upto 1 guest) 3 years subscription with L1-L3 on-site support	2	1,56,435.00	3,12,870
				Sub Total - (3) :	**42,57,304**
4	**Hardware Systems Costs**				
	4.1	**Prodution Environment**			
	4.1.1	Upgradation of existing hardware i.e., 2 nos. of IBM's P740 machines with suitable capacity in cluster having 16 CPU Cores & RAM 128GB each	8	3,14,055.00	2512440.00
	4.1.2	10% Installation/Commissioning cost of hardware (One time installation/commissioning charges)			251244.00
	4.1.3	IBM Storwize V7000 with 64 GB Cache, 20 TB Usable Capacity using 1.2 TB SAS drives in RAID5	1	62,89,269.00	6289269.00

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	4.1.4	Servers Hardware for DRM software (Quad Core Intel Xeon) with built-in 3 years on-site warranty)	2	3,50,600.00	701200.00
				Sub Total - (4) :	**9754153.00**
5	**Network Equipment /Infrastructure Costs**				
	5.1	Firewall, IPS, IDS, SIEM, NOC augmentation Cost @CRIS DC	8	3,18,741.00	25,49,928
	5.2	Data Centre Local Network augmentation at CRIS DC @ Rs. 20,000/- pr 1 Gbps connection	20	20,000.00	4,00,000
	5.3	License Cost of Servers/OS instances for SIEM, VA, NMS, HIPS et.	20	45,000.00	9,00,000
	5.4	Network performance and security audit charges applicable 2nd year onwards for 1 year	8	8,334.00	66,672
	5.5	Cost of hiring lease line of 16 Mbps @8295 per 02 Mbps (E1) from 1st year onwards for 2 years	8	8,295.00	1,32,720
	5.6	Annual charges from upgradation of n/w security infra, replacement of equipment in RIDC applicable from 2nd year onwards for 1 year	8	60,000.00	4,80,000
		Total - Network Equipment /Infrastructure Costs (6) :			**45,29,320**
6		**Facilities (Civil & Electrical)**			
	6.1	Anciliary Civil works at IRICEN, Pune for setting up of DR Site	L/s		30,00,000
		Sub Total Facilities (6)			**30,00,000**
7	**Project Management(Establishment)**				
	7.1	Phase 1 (Development of User and System Requirement Specifications, Designs)	8		**21,21,268**
	7.2	Phase-3 (Other phases , eg., Roll-out Implementation, Enhancements etc.	8		20,81,304
		Sub Total Project (Management Establishment) (7)			**42,02,572**
(A)		**Sub Total (Project Cost) (1 to 7)**			**341,23,573**
8		**CRIS Charges on (A) (Kept max. 10%)**			
	8.1	ICT Innovation @ 3%			10,23,707
	8.2	Quality/ ISO - Certifications @ 2%			6,82,471
	8.3	CRIS Internal IT Systems (HW/SW) and Info rotation Security @ 2%			6,82,471
	8.4	Procurement Services @ 2%			6,82,471
	8.5	Contingency Charges @ 1%			3,41,236
		Sub Total - CRIS Charges on above (9) :			**34,12,357**
		Total (A + 8)			**375,35,930**
(B)		**GST on Total (B) @18%**			**67,56,467**
(C)		**Total (B + C)**			**442,92,398**
		Contingencies @1% of (A)			**341235.73**
(D)		**Grand Total (B+C+D)**			**446,33,633**
		Rounded Off			**Rs. 4.46 Crore**

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