

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

No. 2024/C&IS/Project/FMM Aug/7

New Delhi, Dated: .07.2025

**The General Manager,
Northern Railway,
New Delhi.**

Sub: Sanction of the work of “FMM Software Enhancement, Infrastructure Augmentation and Training & Support” under Plan Head – 17 (Computerization) – reg.

Ref: CRIS’s letter No. CRIS/ITPI/BDGT/3/2023-CMM dated 20.10.2023.

Approval of Board (M/O&BD, Member/Finance and Chairman & CEO) is hereby communicated for inclusion of the work **“FMM Software Enhancement, Infrastructure Augmentation and Training & Support”** at a cost of Rs.48.35 Crore (Rupees Forty Eight Crore and Thirty Five Lakh only) chargeable to allocation “Capital” in the Sub Umbrella Work of Northern Railway (Project ID – 05.00.17.25.1.00.001) under the sanctioned Umbrella ‘Computerization and Information Technology Projects on Indian Railways- Umbrella work 2024-25’ (Item No. 157 of Sanctioned Budget Allotment (SBA), 2025-26 issued by Northern Railway). Item-wise break-up of cost of the work is attached as ‘Annexure’.

Accordingly, necessary action may be taken for inclusion of the above work in the LAW Book of Northern Railway.

This issues with the concurrence of Finance Directorate of Ministry of Railways.

Digitally signed by
Bharat Bhushan Harit
(Bharat Bhushan Harit)
Date: 17-07-2025
17:36:08
Director ME (C&IS)

No. 2024/C&IS/Project/FMM Aug/7

New Delhi, Dated: .07.2025

Copy to:

1. The Principal Financial Adviser, Northern Railway, New Delhi.
2. Principal Director of Audit, Northern Railway, New Delhi.
3. The Dy. Comptroller and Auditor General of India (Railways), Room No. – 224, Rail Bhawan, New Delhi.

Digitally signed by
SANJAY KUMAR SINGH
Date: 18-07-2025
09:29:08
Member Finance

Copy to:

1. Executive Director ME(Freight), Railway Board.
2. The Principal Chief Commercial Manager, Northern Railway, New Delhi.
3. The CE(P&D), Northern Railway, New Delhi.
4. CAO/FOIS, CRIS Complex, Chanakyapuri, New Delhi.
5. Managing Director, CRIS, Chanakyapuri, New Delhi.
6. F(X)-II and Budget Branches of Railway Board.

Annexure

No. 2024/C&IS/Project/FMM Aug/7

New Delhi, Dated: .07.2025

Break up of the cost of the work of “FMM Software Enhancement, Infrastructure Augmentation and Training & Support”

Estimate for FMM Software Enhancement, Infrastructure augmentation including DR setup and Training & Support					
Sl.	Work Item	Unit	Qty (Q1)	Rate (R1)	Q1*R1 (In Rs.)
1	Application Software - Development (Resources) Costs				
1.1	S-D-L-C parts of Application SW, including up to Testing (UAT)	person-months	333	As per sheet at Annexure 1	78,424,677
1.2	Non-CRIS Resources: Technical Work Outsourcing (space given in Civil infra)	person-months	18	140,000	2,520,000
	Total for Application SW (1)				80,944,677
2	Implementation, Training and Data Mgt. Costs				
2.1	Implementation and Handholding Support	person-month	18	339,768	6,115,824
2.2	Sys-SW Training	LS	1	825,000	825,000
2.3	Help desk Operation (24 X 7)	person-month	162	44,138	7,150,275
2.4	Travel costs to Implementation Locations	person-days	396	11,750	4,653,000
	Total Implementation & Training (2)				18,744,099
3	SYSTEM SOFTWARE (Sys-SW) Costs				
3.1	System Software for Dev. & Staging (in CRIS) /for Pilot Development				
3.1.1	OS/Stack for Development Systems	Nos	1	566,723	566,723
3.1.2	System Software (App/Web)	Nos.	2	1,391,830	2,783,660
3.1.3	SMS sending /responding system	Nos	1,861,500	0.021	38,161

3.1.4	Container Platform Standard (2 Cores or 4 vCPUs)	Nos.	2	314,833.80	629,668
3.1.5	Container Runtimes, Standard (2 Cores or 4 vCPUs)	Nos.	2	115,986.00	231,972
3.1.6	Data Foundation Advanced, Standard (2 Cores)	Nos.	2	139,926.20	279,852
	Sub Total: Pilot /Dev. Sys-SW (3.1)				4,530,036
3.2	System Software for Production Systems				
3.2.1	OS/Stack for Production Systems	Nos.	4	566,723	2,266,892
3.2.2	System Software (App/Web)	Nos.	4	1,391,830	5,567,320
3.2.3	Sys-SW: Dashboard (BI system etc.)	Nos.	1	27,740,000	27,740,000
3.2.4	Sys-SW: System (Database Licences)	Nos.	32	402,542	12,881,344
3.2.5	Application Customization and Development (Depot App, Central App,BI Reports, Mobile App)	Nos.	2	834,746	1,669,492
3.2.6	Quality Checks & Security External Audits of SW Application	years	1.5	600,000	900,000
3.2.7	Container Platform Premium (2 Cores or 4 vCPUs)	Nos.	16	466,421	7,462,728
3.2.8	Data Foundation Advanced, Premium (2 Cores)	Nos.	16	209,889.20	3,358,227
3.2.9	Container Runtimes, Premium (2 Cores or 4 vCPUs)	Nos.	16	173,978	2,783,651
3.2.10	Installation & Commissioning services	Nos	1	1,800,000	1,800,000
	Sub Total: Prod. Sys-SW (3.2)				66,429,654
	Sub Total: Sys-SW (3.1 + 3.2)				70,959,690
3.3	System software Maintenance Costs (paid to OEMs)				
3.3.1	On-Site Support for Sys-SW, as required	person-days	30	46,000	1,380,000

	Sub Total: Sys-SW Maintenance (3.3)				1,380,000
	Total: System SW (3.1 + 3.2 + 3.3)				72,339,690
4	HARDWARE Systems Costs				
4.1	Development /Pilot /Testing /Staging Environment				
4.1.1	Laptops /Desktops(For Windows)	Nos	5	87,000	435,000
4.1.2	Laptops /Desktops (iMac/MacBook, iOS etc)	Nos	3	127,034	381,102
4.1.3	Printer (MFP for Development Team)	Nos	1	44,000	44,000
4.1.4	Specialty HW System for development & testing (Mobile/Tablets/Hand Held etc. windows devices)	Nos	5	9,660	48,300
4.1.5	Display Screen Intelligent	Nos	1	139,831	139,831
	Sub Total of Dev. /Pilot HW (4.1)				1,048,233
4.2	Production/DR Environments				
4.2.1	Cloud Infrastructure-(Core & Storage) IaaS Components (Primary)	years	2	13,502,381	27,004,762
4.2.2	Cloud Infrastructure-(Core & Storage) IaaS Components (DR)	years	2	13,502,381	27,004,762
	Sub Total of HW Prod. (4.2)				54,009,524
4.3	Terminal Sub-System (TSS)				
4.3.1	Thermal Printers	Nos	1,700	23,609	40,135,300
4.3.2	Paper rolls	Nos	17,000	195	3,313,559
4.3.3	Data SIM	Nos	1,700	10,764	18,298,800

4.3.4	Display Panels Intelligent for Dashboard	Nos	258	139,831	36,076,398
4.3.5	Hand Held Devices/ Notebooks	Nos	1,700	20,913	35,552,100
	Sub Total for T S S (4.3)				133,376,157
	Total for System Hardware (4.1+4.2+4.3)				188,433,914
5	Network Equipment /Infrastructure Costs (FOIS /UTN, RCIL, open to Internet Option)				
5.1	Network cost estimate for hosting web services on Rail cloud in RIDC (36 Months)				
5.1.1	Internet Bandwidth Charges applicable (E1 port)	Nos	25	7,334	183,350
5.1.2	Cost Component of common Internet Gateway at CRIS DC	Nos	25	176,328	4,408,200
	Sub Total NW Primary DC Equipment / Infra				4,591,550
5.2	Network cost estimate for FMM DR Setup at SC				
5.2.1	Leased line for Data Replication (E1 port)	Nos	5	135,900	679,500
5.2.2	Internet Bandwidth Charges applicable (E1 port)	Nos	25	7,334	183,350
5.2.3	Cost Component of common Internet Gateway at DR/SC site	Nos	25	264,492	6,612,300
	Sub Total NW DR Equipment / Infra				7,475,150
	Total NW equipment /Infra (5)				12,066,700
	Sub-Total for Project costs (1+2+3+4+5)				372,529,080
6	Departmental Charges on above				
6.1	ICT Innovations@2.1%	0.021			7,823,111
6.2	Quality/ISO-Certifications@1.4%	0.014			5,215,407
6.3	CRIS Internal IT Systems (HW/SW) and Information Security@1.4%	0.014			5,215,407
6.4	Procurement Services@1.4%	0.014			5,215,407

6.5	Contingency Charges@0.7%	0.007			2,607,704
6.6	Implementation by CRIS @3%	0.030			11,175,872
	Sub-Total of Departmental Charges (6)				37,252,908
	Grand Total of Project (1 to 5 + 6)				409,781,989
	GST @ 18%				73,760,758
	Total for project Cost including GST @ 18%				483,542,746
	Rounded off				Rs.48.35 Crore

Annexure-1

SDLC Phases	Calendar months (A)	SPE			SSE			ASE			JSEs			Total (SPE+SSE+ASE+JSE) for one month (B)	Manmonths (A*B) (Rs.)	Qty
		Cost Per month	Nos.	Cost	Cost Per month	Nos.	Cost	Cost Per month	Nos.	Cost	Cost Per month	Nos.	Cost			
Requirement Analysis	3	339768	6	2038608	215916	6	1295496	162157	3	486471	146558	2	293116	4113691	12341073	51
Design	3	339768	6	2038608	215916	6	1295496	162157	3	486471	146558	2	293116	4113691	12341073	51
Development	6	339768	6	2038608	215916	6	1295496	162157	6	972942	146558	2	293116	4600162	27600972	120
Testing	3	339768	6	2038608	215916	6	1295496	162157	6	972942	146558	2	293116	4600162	13800486	60
System Integration	3	339768	6	2038608	215916	6	1295496	162157	3	486471	146558	2	293116	4113691	12341073	51
Total															78424677	333