

No.:F5.501(1428)/DoITC HQ/2024

Dated:

Minutes of 104th meeting of SeMT dated 06-03-2025

The 104th meeting of the State e-Governance Mission Team (SeMT) was convened under the Chairpersonship of Secretary & Commissioner, IT&C on 6th March, 2025 in Committee Room, 2nd Floor, IT Building, Yojana Bhawan Campus, C-Scheme, Jaipur. List of participants is enclosed at **Annexure -"A"**.

Agenda Item(s) discussed during 103rd meeting of SeMT are indexed as follows:

(Rs. in Lakh)

SN	Project Proposal Name	Department/ Organization	Estimated Cost
1	RajKisan Saathi 2.0: Rajasthan State - Agriculture Information & Management System (RS-AIMS)	Agriculture Commissionerate	7720.00
2	Jan Soochna Portal	Dept. of IT&C/ RISL	572.90
3	Design, Development, Implementation of New Module with Maintenance & Support of New & Existing Modules of RajMines Application	Mines & Geology Dept., Rajasthan, Udaipur	2000.00

The followings were discussed in the meeting:

1. Project : RajKisan Saathi 2.0: Rajasthan State - Agriculture Information & Management System (RS-AIMS) (Agriculture Dept.)

Rajasthan, India's largest state covers 342,239 sq. km, constituting 10.4% of the country's landmass. With 17.4 million hectares of cultivated land, Rajasthan contributes significantly to India's agricultural landscape, covering 12.49% of the net cultivated area. Agriculture is the backbone of the state's economy, contributing 22.5% to Rajasthan's GDP.

The RajKisan Saathi 1.0 initiative was launched as a Single Window Integrated Platform to facilitate "Ease of Doing Farming", similar to the "Ease of Doing Business" framework.

This initiative provided:

- Direct Benefit Transfer (DBT) for subsidies & schemes,
- Online licensing of agri-inputs,

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- Decision support for farmers,
- Market linkages through an e-marketplace, and
- Advanced monitoring through data analytics and GIS-based insights.

Key Deliverables & Achievements of RajKisan Saathi 1.0

- 1.17 crore seed minikits distributed via mobile applications.
- 73 lakh farmers are on boarded, with ₹2845.88 crore disbursed through DBT.
- 17.43 lakh farmers applied for various subsidies.
- 1.55 lakh licenses issued for Agri-input dealers & manufacturers.
- 1.13 lakh agri-input samples tested via the RajAgriQC mobile app.
- 59,040 girl students received ₹107.92 crore in scholarships.

Need for RajKisan Saathi 2.0

While RajKisan Saathi 1.0 has provided a strong foundation, certain gaps remain in providing a comprehensive, technology-driven solution to empower farmers and boost productivity. These gaps include:

- Lack of an End-to-End Online Support System for Farmers – No real-time, AI-driven advisory system covering the entire farming lifecycle from sowing to post-harvest.
- Digital Farm-to-Trade Ecosystem Missing – No integrated digital platform to support seamless transitions from cultivation to market trade.
- Limited Real-time Guidance & Follow-ups – Farmers need continuous support and personalized advisory to optimize farm output.
- Need for Learning & Capacity Building – Farmers require modern agri-tech training, weather insights, and market intelligence.
- Anticipated Crops Based on Farm Health – AI-based predictive tools to recommend crops based on soil quality, weather conditions, and market trends.

To address these gaps, RajKisan Saathi 2.0 aims to build a next-generation, integrated Agriculture Information & Management System (RS-AIMS), leveraging AI, ML, IoT, GIS, and Blockchain technologies.

The existing RajKisan Saathi 1.0 is the core IT application comprises of 150+ modules to deliver various G2C, G2B and G2G services of Agriculture and allied department. Development of new core modules and enhancement/maintenance of existing modules is an on-going process. The tenure is approved till FY 26-27 in the SeMT vides their 99th meeting dated 06/05/2024.

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The proposed RajKisan Saathi 2.0 has entirely different deliverables and advanced scope of work using emerging technology. **RajKisan Saathi2.0 shall be implemented in parallel with RajKisan Saathi1.0.**

Objectives of RajKisan Saathi 2.0

- Develop a State Unified Digital Agriculture Database to integrate soil health, crop data, market trends, and weather forecasts.
- Enhance Crop Monitoring with AI/ML for crop classification, acreage tracking, and pest/disease detection.
- Enable Smart Advisory Systems for sowing, irrigation, pest control, and extreme weather alerts.
- Strengthen Farmer Capacity Building via e-Learning, advisory services, and expert consultations.
- Digitize Market Linkages through e-Marketplace, price forecasting, and production cluster insights.
- Ensure Quality Assurance through real-time tracking of input quality and harvest standards.
- Deploy AI-powered Farmer Helpdesk (Gen-AI) to provide 24x7 digital assistance.
- Improve Transparency & Accountability via real-time dashboards, MIS reports, and geo-tagged verifications.

Scope of Work (SoW)

- a) Agriculture Data Stack:** Develop a State Unified Digital Database covering:
 - Soil Health, Climate, Pest & Crop Information
 - Market Intelligence & Pricing Trends
- b) Crop Monitoring & Decision Support System:**
 - AI-based Crop Classification & Acreage Tracking
 - Crop Health Monitoring & Yield Estimation
 - Harvesting Advisory & Assessment
- c) Field Management Modules:**
 - Sowing & Crop Selection Advisory
 - Pest & Disease Monitoring using AI-based image processing
 - Water Stress Advisory & Extreme Weather Alerts
 - Soil Health Card-based Recommendations
 - Farmer Helpdesk powered by Gen-AI
- d) Market Services & Trade Linkages:**

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- E-Marketplace for direct buyer-seller interaction
- Market Price Forecasting & Trend Analysis
- Identification of Production Clusters for better logistics

e) Input Management System:

- Demand & Distribution Management for Seeds, Fertilizers & Pesticides
- Quality Control & Certification Mechanism

f) Quality Assurance & Compliance:

- AI-based Crop & Grain Quality Assessment
- Blockchain-enabled Traceability for Food Safety

g) Centre of Excellence for Farm Advisory Services:

- Enhancing Kisan Call Centres & Kisan Seva Kendras
- Farmer Training Programs & e-Learning Modules

Expected Outcomes

- Enhanced Agricultural Productivity through data-driven decision-making.
- Increased Farmer Income via better market linkages & real-time price forecasting.
- Higher Transparency & Accountability with geo-tagged tracking & blockchain implementation.
- Digital Transformation of Rajasthan's Agriculture Sector through AI, ML & IoT-based Smart Farming.

The RajKisan Saathi 2.0 project is a transformational initiative aimed at revolutionizing agriculture in Rajasthan by leveraging cutting-edge technology. It will empower farmers, streamline agricultural processes, and ensure sustainable growth in the sector.

Financial Implication

The proposed project duration is 4 years and 3 months, with an estimated budget of ₹77.20 Crores.

S.No	Component	Estimated Cost (₹ Crores)
1.	Software Development	63.05
2.	Software Maintenance	4.24
3.	Hosting & Infrastructure	9.90

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	Total	77.20
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Year wise Breakup

(Amount in Lakh)

S.No	Item Description	Total Estimated Cost in INR including Tax	Total Estimated Cost in INR excluding Tax	Capex cost inclusive of Taxes		Opex cost inclusive of taxes		
				2024-25	2025-26	2025-26	2026-27	2027-28
	Development and Implementation of Platform and Modules for RajKisan 2.0							
1	Development of RajKisan Saathi 2.0 Platform							
1.1	Unified Database							
1.2	Blockchain Engine							
1.3	Satellite Engine							
1.4	GIS Engine							
1.5	AI/ML Engine							
1.6	Map Data Service Engine							
1.7	Weather Data Engine							
1.8	Model Engine and Manager:							
1.9	IoT Engine							
1.10	Gen-AI Engine							
1.11	Voice and Translation Engine							
1.12	Mobile Engine							
1.13	Web Dashboard and Interfaces							
1.14	User Access & Data security							
	RajKisan Saathi 2.0 Modules							
2	Raj Kisan Agriculture Data Stack							
2.1	Unified Farmer Database (Utilizing USFI & SFDB under Agri Stack)							
2.2	State Unified Digital Database for Soil, Climate, Crop, Agronomy, Pest, and Market							
2.3	Field boundary segmentation							

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3	Crop Monitoring	681.45	577.50	681.45			
3.1	Crop classification & acreage.						
3.2	Crop health.						
3.3	Crop yield.						
3.4	Harvesting assessment						
4	Field management - Farmer Services	1765.575	1496.25	1765.575			
4.1	Sowing advisory						
4.2	Crop selection.						
4.3	Pest & Disease						
4.4	Water stress advisory						
4.5	Extreme event alerts						
4.6	Pictorial analysis						
4.7	Gen-AI - Farmer Helpdesk						
4.8	Soil Health Card Based Advisories						
4.9	Location based Services						
5	Department Officer's ERP	949.90	805.00	949.90			
5.1	Extreme weather event service (drought & flood)						
5.2	Crop insurance.						
5.3	Crop loss assessment.						
5.4	Carbon Assessment						
6	Market Service	619.50	525.00	619.50			
6.1	Agriculture Market Intelligence system for farmers - e-market place						
6.2	Market price and trend						
6.3	Production cluster (Mandis, Warehousing,)						
7	Quality assurance	433.65	367.50	433.65			
7.1	Quality Control of Agri Products						
7.2	Grain physical quality assessment (using pictorial)						
7.3	Monitoring of input quality (sample testing)						
8	Input Management.	371.70	315.00	371.70			
8.1	Seed						
8.2	Fertilizer						
8.3	Pesticide						
10	Training and Capacity Building	141.60	120.00	70.80	70.80		
11	Infrastructure & Hosting	990.00	838.983	297.00	297.00	132.00	132.00
							132.00

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	(Development, Staging and Production)							
12	Maintenance and Operation Support							
12.1	Maintenance support for Software	424.80	360.00			141.60	141.60	141.60
	Total	7720.425	6542.733	4157.075	2742.55	2736.00	2736.00	2736.00

Fund Management

Project has received administrative approval under revised National e-Governance Plan in Agriculture (NeGP-A) Guidelines, for FY 2024-25- through letter Z- 11018/7/2024-Digital Agriculture FTS No. 148492 Dated 07.10.2024 from MoA&FW, GoI.

As per funding pattern of the Scheme, 60% of the cost of the project will be borne by the central Government and rest 40% will be shared by the state Government.

The Committee advised:

1. to thoroughly study this type of live projects of State(s) like Odisha and Madhya Pradesh.
2. to coordinate with Department of Information Technology and Communication while finalizing the scope of the work of the project.
3. To coordinate with Settlement Department, Rajasthan to avoid replication of the work pertaining to the crop-cultivation etc.

The Committee accords technical approval (In-Principle) on the proposal having estimated cost of Rs. 7720.00 Lakh.

2. Project : Jansoochna Portal (DoIT&C/ RISL)

Jansoochna Portal launched on 13th September 2019 with 23 services of 13 departments having objective to define how digital technology is used for strengthening peoples' rights and for sharing information in the public domain.

The Jansoochna Portal is an initiative by the Government of Rajasthan aimed at promoting transparency, accountability, and providing easy access to government-related information to citizens. This portal serves as an important digital tool for citizens to access various public services, schemes, and other important government information.

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It is the first of its kind initiative in which information about all the schemes implemented by the Government in the Ward/Panchayat is disclosed at one place i.e. portal <http://jansoochna.rajasthan.gov.in/>.

Alignment with RTI Act: A roadmap has been separately made for bringing all services under single portal in line with Section 4 (2) of the RTI Act and Rajasthan Information Technology (Electronic Delivery of Services) Rules, 2019 drafted in compliance with Electronic Service Delivery Rules, Government of India.

Jansoochna Portal implements Section 4 (2) of the Right to Information Act, 2005: "It shall be a constant endeavour of every public authority to take steps in accordance with the requirements of clause (b) of sub-section (1) to provide as much information as possible to the public at regular intervals through various means of communications, including internet, so that the public have minimum resort to the use of this Act to obtain information".

Statistics and Development of Jansoochna Portal.

Jansoochna Portal was launched with 13 Departments having 23 services in year 2019. As on date, total 290 types of Information are shared on real time basis through API Integration with concerned departments and 453 types of Information is being shared vide Links/PDFs, resulting into total of 743 type of information on a single portal.

Year wise Growth Stats:

Stats	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Departments	28	70	115	115	117	117
Schemes	54	148	261	334	341	348
Information Types	149	383	572	698	727	743
Visitor(s)	9.63 Lacs	4.94 Cr.	10.60 Cr.	12.93 Cr.	16.59 Cr.	18.49 Cr.
Access Count(s)	69.01 Lacs	5.32 Cr.	11.33 Cr.	20.76 Cr.	32.09 Cr.	39.32 Cr.

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Present Stats:

S. No.	Description	Count No's.
1	Departments	117
2	Schemes	348
3	Type of Information(s)	743
4	Visitor Count(s)	18.53+ Cr.
5	Information Access Count(s)	39.50+ Cr.
6	Information accessed through e-Mitra Plus Machines	16.03 Lacs
7	No. of Departments under Scheme Eligibility Module	19
8	Total no. of Schemes under Eligibility Module	192
9	Scheme Eligibility Verified Through JanAadhar	3.25 Lacs
10	Total no. of Departments under Penetration Module	4
11	Total no. of Schemes under Penetration Module	23

Delivery Channels: Jansoochna Portal Information services are being delivered through three platforms as under:

- Web (Desktop & Mobile) version at <http://jansoochna.rajasthan.gov.in>
- Mobile Application for Android and iOS
- E-Mitra Plus Self Service Kiosks (both Rural and Urban)

Latest developments taken-up:

- Scheme Eligibility module is very important module of Jansoochna Portal which indicates citizen's eligibility for various schemes of Government of Rajasthan. Citizen can check its eligibility with 19 Departments for 192 Schemes under Scheme Eligibility module.
 Scheme Eligibility Module hit count as on date: 65.83+ Lacs
 Scheme Eligibility verified through JanAadhar for Citizen:3.25+ Lacs.
- **Penetration Module** is for display penetration of any scheme to the citizens of Rajasthan in particular areas. **04 Departments** with **23 Schemes** are live under this module.
 Total Hit Count till date: **15.25+ Lacs.**

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Ongoing Operational & Development Activities: Following tasks are taken up by team for maintaining the portal's functionality and ensuring that it remains a reliable and user-friendly resource for citizens.

1. Data Management:

- Adding New Schemes: Integrate newly launched government schemes into the portal and integrating with departments for new services offered by line-department.
- Updating Scheme Information: Regular meetings with State Departments for sharing digitalized Information through Jansoochna Portal. Regularly update data about schemes, services, and benefits offered by the government departments

2. Content Verification

- Monitoring Services/Information Access: Continuous monitoring of API's provided by the departments along with validation of pdf/source links shared by department is taken care by Jansoochna Team to ensure uninterrupted service delivery to the citizens of state.
- Accuracy Checks: Verify that the information displayed is accurate and aligns with official announcements.
- Language Accessibility: Ensure the content is available in multiple languages, catering to diverse users.

3. Analytics & Enhancement:

- Usage Analytics: Monitor user activity to understand popular schemes and features and using same to facilitate citizens in easy access to desired information
- Feedback Analysis: Track trends in user feedback to identify areas of improvement.

4. Outreach and Awareness

- Promotional Activities: Organize Trainings for smooth awareness among distant locations about the portal's features and benefits.

5. Security and Compliance

- Data Privacy: Regularly review of data displayed through services and ensure that all sensitive data should be properly protected (via masking and other means) to avoid any data leakage issues.

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6. System Maintenance

- Bug Fixes: Monitor the portal for technical issues and resolve bugs promptly.
- Performance Monitoring & Optimization: Ensure the portal operates efficiently, even during peak usage.

Scope of Work (SoW):

The Jansoochna Portal has been developed and continues to be maintained (along with new additions and feature enhancement) by the Department of Information Technology and Communication, Government of Rajasthan/RISL.

It is imperative in today's context to incorporate AI/ML features in Jansoochna Portal to enhance data analysis, improve user experience, and ensure more accurate and timely information dissemination. By leveraging these advanced technologies, the portal can provide deeper insights, predictive analytics, and personalized content that meets the evolving needs of its users, thereby fostering greater transparency and efficiency in public information access. Therefore, to ensure continuous development, operations and maintenance (O&M) with enhancements to the existing system, incorporating new AI/ML-powered features, collaborating with departments to add new schemes/information, and keeping the existing system up-and-running, it is proposed to hire resources through resources from RISL empanelled firms for a period of FIVE years for Development and O&M of the portal.

Financial Implication:

The resource-wise breakup for application development & O&M for five years is estimated as below:

S.N.	Designation	Qty.	Estimated Salary MMR Excl. GST	Estimated Salary Yearly Excl. GST
1	Senior Developer	1	1,30,000	15,60,000.00
2	Developer Application	1	1,10,000	13,20,000.00
3	Full Stack Developer	1	1,25,000	15,00,000.00
4	Business Analyst	1	1,20,000	14,40,000.00
5	Database Expert	1	90,000	10,80,000.00
6	Tester/Content Manager/Helpdesk/Support	2	55,000	13,20,000.00
A	Total First Year Cost			82,20,000.00
B	Total Second Year Cost (10% Escalation) B=A*110%			90,42,000.00
C	Total Third Year Cost (10% Escalation) C=B*110%			99,46,200.00
D	Total Fourth Year Cost (10% Escalation) D=C*110%			1,09,40,820.00
E	Total Fifth Year Cost (10% Escalation) E=D*110%			1,20,34,902.00

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F	Total (F=A+B+C+D+E)	5,01,83,922.00
G	Service Charge (12%) (G=F*12%)	60,22,070.64
H	GST (18%) of Service Charges (H=G*18%)	10,83,972.72
I	Total Cost (I=F+G+H)	5,72,89,965.36
	Say Rupees	572.90 Lakh

Fund Management:

Estimated expenditure of the project is Rs. 572.90 Lakh for Five Years. Expenditure would be met from budget head of Jan Soochna Portal Project.

The Committee accords technical approval on the proposal having estimated cost of Rs. 572.90 Lakh.

3. Project : Design, Development, Implementation of New Module with Maintenance & Support of New & Existing Modules of RajMines Application (Mines & Geology Dept.)

Project Objective:

- Automate and streamline mining processes, reducing manual labor and increasing productivity.
- Implementation of Vehicle Tracking and Monitoring system for Mineral carrying vehicles.
- Weighbridge automation for e-Rawanna system.
- Develop innovative functionalities to address revenue leakage and illegal mining.
- Setup of Command Center at Supt. Mining Engineer Circle level offices

Existing Online System:

The Department of Mines and Geology Online Management System (DMGOMS) has started the new phase of development in June 2022. The department has selected a vendor through an open tender process for the implementation of system. As per the tender, the project is for four years, including 18 months of development (three phases of six months each) and 30 months of support and maintenance of existing and newly developed modules. Currently, the development work for the third and final phase with development extension.

In addition to the existing tender scope, the department has prepared a new roadmap to further enhance to make the existing system more result oriented and prevent irregularities. Under this roadmap, several new modules will be developed in the departmental online system.

Proposed New Development:

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1. Development of Sand Portal and Mineral Booking System:

Sand Portal-

- a) Development of dedicated Sand Portal connect producer and end user as per requirements.
- b) Registration of M-Sand units.
- c) Maintain production and e-return & assessment.
- d) Dashboard to monitor production and other activities.

Sand & Other Mineral Booking System-

- a) Function for the Individuals interested in purchasing sand and other minerals can submit their requests online, specifying the desired quantity, the preferred seller, and the required delivery date.
- b) Provision for approval/rejection by the seller upon submission of booking request.
- c) Provision to automatically generate payment link for payment
- d) Function to generate e-pass after the seller confirms receipt of the payment.
- e) Option to mark the request as completed, or the system will automatically close the request after a predetermined period following the issuance of the e-Pass by the applicant.

Above functionality will be available on both Web and Mobile based application.

2. GPS-RFID Based Vehicle Tracking System:

The system shall have the functionality to provide an end-to-end integrated platform to track of the mineral carrying vehicles using GPS-RFID platform. The major function of the module shall include the following:

- a) The software should have capability give a quick and easy way to view overall Mines and Minerals Fleet performance on real time
- b) SI will develop VTMS on of the suggestive Map platform after discussion of department.
- c) The system shall have the functionalities of real-time tracking and monitoring of vehicles for optimizing the transportation
- d) Provide map based tracking and transit route line based tracking of the mineral carrying vehicles

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- e) Provision of Geo Fencing of lease area, dealer location and empaneled weighbridges where e-Rawanna/e-Transit Pass will be generated.
- f) The system shall generate real-time reports on truck movements, stops, route deviations and delays
- g) The system shall have functionalities to explain the role of customized alerts in improving safety, security, compliance and analyze alert data to make informed decisions and take proactive measures.
- h) The system shall have functionalities for sending notification on emails or pop-up notification against vehicle Assignment at Origin, Trip start (vehicle exits geo-fence at origin), en-route tracking with ETAs and delays, etc.
- i) The system shall have mobile functionalities to manage all aspects of transportation, Trip assignment, Trip Tracking, GPS status via mobile APP
- j) The system should have capable of displaying total trip details of a particular vehicles on the Map for a particular day and time period as required
- k) System shall provide alerts on following incidents
 - Tampering GPS device
 - Excess time halt outside geo-fenced Area
 - Same vehicle conducting multiple trips within very short time
 - Vehicle movement in deviated route/ Illegal Mining Prone Area
 - Vehicle moving without e-Rawanna/ e-TP
 - Vehicle non reaching at destination within defined timeline
 - Alert for frequent movement on deviated routes/ geo-fenced illegal mining prone areas with vehicle tracking.
 - Vehicles e Rawanna /eTP validity finish
 - Vehicles with e Rawanna/ eTP destination not reached.
- l) A GPS and RFID based Vehicle Monitoring System to identify, monitor, track and control the Route Navigation of the vehicles carrying and transporting minerals.
- m) The software shall be web based and utilizes high resolution digital map to show real-time position of the vehicles.
- n) The software shall provide map based tracking and transit route line based tracking of vehicles by the control Centre operators.
- o) Facility to provide the pre-registration for installation of GPS devices for mines vehicle owner.
- p) Geo-fencing of mineral concessions: System will manage all the mineral concession coordinates and ensure that the mineral carrying vehicle should carry the mineral from the specific lease boundary or dealer location and confirm the rawanna/TP to the particular weighbridge location.

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- q) Provision to manage prone area details and will provide trigger if any registered vehicle enters in that prone areas.
- r) Monitor in-transit, about-to-complete, completed and planned trips.
- s) Monitor actual delivery time and place using Geo-Fencing abilities.
- t) View vehicle wise important information about the trip (Vehicle, Lessee / licensee /dealer / end-user, Carrying Minerals, Mineral Weight, Distance covered, Destination, planned trip time etc.) on interactive GIS Map.
- u) SI will share the technologies and platform to department and after approval will start development.
- v) Other interlinked features mentioned in Operation Control Center scope.
- w) The developed system must be fully compatible with AIS140 standard GPS devices.
- x) Comprehensive analysis and dynamic reporting as per the requirements of DMG, Rajasthan.
- y) The software should have capability to have a multi-screen based tracking system, so as to enable tracking staff to quickly analyses activities and have a better insight into operational data of all activities within the system

Mobile App

Functionality for Department

- a) This software module shall be used by the department to check permit status / 24-hours activity of the vehicle registered in platform. Set of features for this sub-module is as follows
- b) List View: Provide list of all the GPS enabled vehicles with their vehicle registration number last communication date and time, last known location and driver/owner Info. It must provide filter, sort and search options to fetch required results.
- c) Live Location: This sub-module must provide features to check live location of the selected vehicle in map nearby Geo-fenced area to be shown. the selected vehicle. Vehicle details must be shown with its speed, status, date, time and location and show end to end route.
- d) Alerts & Incident Management: Provide list of alerts as per the assigned roles of users.

Functionality for departmental stakeholders

- a) This Software module shall be used by the transporter to check GPS status of the vehicle and provision to log a service request.
- b) Vehicle details: Provision to know GPS communication status last communication date & time, last known location

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- c) Last 24-Hour Activity - Last 24-hour tracking of the vehicle to be shown with its speed, status, date, time and location.
- d) Alerts & Incident Management: Provide list of alerts as per the assigned roles of users.
- e) User can report an incident in case of vehicle breakdown and dispatch cancellation.

Note: In above module all the Hardware (GPS) and maintenance cost will be borne by the vehicle owners. To facilitate the department will empanel hardware manufacturers/vendors for open market purchase. The estimated setup cost are as below:

#	Hardware description	Est. Cost (Rs.)
1.	AIS-140 GPS device with installation and 1yr Sim Recharge	5000-7000

Technical Specification of AIS-140 GPS Device is as follows:

GPS Hardware Specifications

a. GNSS (GPS) Module

Satellite Support: GPS, GLONASS, Galileo, and IRNSS (NavIC recommended)

Position Accuracy: \leq 2.5 meters CEP

Cold Start: \leq 35 seconds

Hot Start: \leq 1 second

Antenna: Internal or External GNSS Antenna

b. GSM / LTE Connectivity

Network Support: 2G/3G/4G LTE (as per DoT/WPC requirements)

GSM Bands: 850/900/1800/1900 MHz

SIM Type: eSIM / Nano SIM / Micro SIM

GPRS Class: Class 12 or higher

Data Transmission: TCP/IP, SMS fallback

c. Processor & Memory

Processor: ARM Cortex / Equivalent high-performance MCU

RAM: Minimum 512 KB

Flash Memory: Minimum 4 MB (for logs & event storage)

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d. Power Supply

Operating Voltage: 9V – 36V DC

Power Consumption: < 2W (normal operation)

Backup Battery: Minimum 4-hour operation during power failure

Protections: Reverse polarity, overvoltage, and short circuit

Software & Functionality

a. Data Logging & Storage

Min. Transmission Frequency: Every 30 seconds during movement and every 300 seconds in idle mode

b. Security & Compliance

Data Encryption: AES 128-bit encryption

Authentication: Device IMEI-based authentication for secure communication

Firmware Upgrade: OTA (Over-The-Air) updates supported

c. Geo-Fencing & Alerts

Geo-Fencing: Configurable multiple geofences

Alert Types: Speeding, tampering, power disconnection, SOS, route deviation

d. Communication with Government Servers Protocol:

AIS 140 protocol for real-time data transmission to government server.

Packet Format: Standardized JSON/XML format for government integration or as final during implementation.

Certifications & Legal Compliance in India

AIS 140 Certification: By ICAT / ARAI / BIS / Other Govt. Labs

WPC Approval: For wireless communication (GSM/GPRS/LTE)

IP Rating: IP65 / IP67 for rugged, outdoor use

ISO 16750-3: Automotive environmental testing compliance (if applicable)

3. Weigh-Bridge Automation:

The proposed solution shall be deployed at each of the Weighbridges for capturing weighment details through un-manned operation as well as also implement Image processing based validation & check at weighbridge to prevent weighment related irregularities during e-Rawanna or e-Transit Pass confirmation for all manual as well as unmanned weighbridges. The various triggers and master sequence of activities shall be maintained and triggered through the following steps:

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- a) Capturing of Vehicle number plate using Automatic Number Plate Recognition Cameras installed at the weighbridge.
- b) Operationalization of traffic lights at the end of entire set of weighment activities
- c) Integration & Operationalization of Boom
- d) Validate Vehicle positioning through sensors and announce appropriate messages through Public Announcement (PA) System
- e) Capturing of truck top view and front view using IP Cameras
- f) Capturing of gross weight of mineral carrier directly from weighbridge digitizer.
- g) Identify vehicle through RFID reader. Reader will capture data from customized RFID tags or Fast tag by consuming Morth/Fast-tag API.
- h) Also display all required message in Hindi or English on LED display board.
- i) Population of captured data into the envisaged system
- j) The developed system will interface with various hardware components and must be intelligent enough to automatically detect connection failures, disconnections, or any tampering with attached devices to ensure accurate weighment. If any tampering /irregularities found system will automatically stop e-Rawanna/e-TP generation and all the activities of Weighing should be completely manual intervention free.
- k) Other interlinked features mentioned in Operation Control Center scope for real time monitoring platform integrated with DMGOMS system for weighbridge across Rajasthan.
- l) Image processing based validation & check at weighbridge to prevent weighment related irregularities during e-Rawanna or e-Transit Pass confirmation for all manual as well as unmanned weighbridges.
- m) SI will provide technical support for selection or empanelment of third party agency for supply and installation of GPS, RFID, Boom Sensor, Display LED, IP Camera, etc. that will be used in this project. SI will ensure that developed software must be fully compatible/ supportable with selective or empaneled instruments/devices/Make-models hardwares. After implementation of the software if any issue arises related to software and hardware compatibility or communication, SI will provide complete technical support to the empaneled Hardware provider.
- n) Provision for tracking of mineral movement from the RFID implemented check-post.

Note: In above module hardware & installation cost will be borne by the weighbridge holders. To facilitate the department will empanel hardware manufacturers/vendors for open market purchases:

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#	Hardware description (Installed at each Weighbridge)	Est. Cost (Rs.) (Based on market price)
1.	RFID Reader (Qty-1)	20,000-40,000
2.	Position Sensor (Qty-2)	20,000-30,000
3.	LED Display (Qty-1)	10,000-20,000
4.	Bullet IP Camera (Qty-3)	12,000-18,000

Technical Specifications of Above mentioned hardware is as follows:

a) UHF RFID Reader Specification

Frequency & Compliance

Operating Frequency: 865-867 MHz (as per WPC regulations in India)

RF Protocol: EPCglobal Gen2 (ISO 18000-6C)

Antenna Gain: 9 dBi or higher

RF Power Output: Adjustable (up to 1W or 30 dBm, as per WPC limits)

Read Performance

Read Range: 3 to 12 meters

Reading Speed: Up to 200 tags per second

Tag Type: Passive UHF RFID tags (Gen2 UHF)

Multi-tag Reading: Supports anti-collision for multiple tag reading

Connectivity & Interfaces

Communication: RS-232, RS-485 (optional), Ethernet

GPIO Ports (optional): Configurable I/O for external devices like boom barriers, sensors, and alarms

Power Supply: 9V to 24V DC input

Environmental & Mechanical Features

Operating Temperature: -20°C to +60°C

Protection Rating: IP65 or higher (for outdoor use)

Mounting: Pole-mount or wall-mount options

Housing Material: Rugged, weatherproof enclosure

b) Ultrasonic Sensor Specification

SI#	Parameter	Technical Specifications
1	Sensing range	200-4000 mm or better
2	Adjustment range	240-4000 mm or better

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3	Transducer Frequency	Approx. 85 kHz or better
4	Opening Voltage	10-30 V DC, ripple 10%ss
6	Interface type	RS 232, 9600 Bit/s, no parity, 8 data bits, 1 stop bit
8	Voltage drop	<2.5 V
9	Ambient temperature	-25 – 70 degree Celsius
10	Storage temperature	-40 – 85 degree Celsius
11	Degree of protection	IP 65

c) LED Dispaly Specification

SI#	Parameter	Technical Specifications
1	Power	12VDC
2	Rating	IP56 or higher
3	Temperature	0 to 55 degree Celsius
4	Visibility	Greater than 20 Meter
5	Language	English & Numeric
6	Dimension	320 x 320 x 200 mm
7	Interface	RJ45

d) Bullet IP Camera Specification

SI#	Parameter	Technical Specifications
1	Image Sensor	Progressive scan CMOS
2	Min. illumination	Color: 0.002 Lux@F1.4(Color, 30 IRE) B/W:0 lux (IR LED on)
3	Image Resolution	5 Megapixel (2560 x 1920) HD resolution
4	Lens	Varifocal f2.8mm-12mm
5	Day & night	IR 30M
6	Wide dynamic range	Yes
7	Backlight compensation	YES
8	Video compression	H.264 / MJPEG
9	Frame rate	30fps (1920 x 1080), 30fps (1920 x 1080)
10	Image settings	Saturation, brightness, contrast adjustable, Digital Zoom through client software
11	Alarm trigger	Motion detection, tampering alarm
13	IP66,weatherproof	Yes
14	POE	Yes
15	On-board Storage	Built-in Micro SD / SDHC / SDXC card slot, up to 64

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4. Provision to Manage Lease Drone Survey data:

The department has issued a guideline for drone based volumetric analysis survey for mining leases. SI will develop the provision for manage following data in the DMG online system and linking with lease holders annual returns in line with IBM.

Raw Data

Point Cloud Data: XYZ coordinates representing the 3D scanned surface.

High-Resolution Images: Original drone images for reference.

Ortho mosaic Maps: Geo-referenced 2D maps.

Processed Data

Digital Surface Models (DSM): Elevation data including natural and man-made objects.

Digital Terrain Models (DTM): Bare-earth elevation data.

3D Models: Textured or mesh-based 3D representations of the surveyed area.

Analytical Results

Volume Measurements:

Total stockpile volume.

Cut and fill volumes.

Surface Area Measurements: Total area of regions of interest.

Elevation Profiles: Cross-sections or slope data for specific areas.

Comparative Volume Data: Change in volume over time (e.g., erosion or stockpile depletion).

Metadata

Survey Date and Time: Timestamp of when the data was captured.

Survey Location: Geo-referenced coordinates or map overlays.

Drone Specifications: Information about the drone and camera used.

Accuracy Reports: GCP data and confidence levels of measurements.

In above scope drone survey and processing will be in lease holder scope SI will only developed the provision to manage the above data.

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5. Operation Control Center (OCC) Application:

The scope of work for the Control Center is to develop a specific comprehensive system to monitoring and managing following activities:

- a) The system must track and display real-time movement of mineral carrying vehicles, Show Notification or alert about irregularities such as route deviations, unauthorized or duplicate trips, excessive halts, vehicle detected in unauthorized mining areas, suspicious activities, and tampering with vehicle data at command center system as well as concerning office dashboard.
- b) Provision to register live Incident (Vehicle breakdown, Rawanna/TP cancellation) on VTMS and same should be display here with provision of approve or reject.
- c) System should have provision to manage all empaneled weighbridge with access of weighbridges live feed as well as feed of rawanna/tp confirmation to review the weighbridge activities or historical weighment records.
- d) The system should also include functionalities to log and register irregularities activities that can be further assigned to specific office or officials and officer should have provision to document incidents and actions taken.
- e) Additionally, it must support sending real-time notifications or alerts to concerning officials, stakeholders, including command center officials, drivers, weighbridge operators, and leases or dealers, in case of any irregularities and incident.
- f) A provision to activate or deactivate vehicles, weighbridges, or dealers should also be included.
- g) The system should allow users to view and manage dispatch and irregularity trails categorized by vehicle, weighbridge, or dealer etc.
- h) The software should have capability to create multiple monitoring triggers panel that will monitor/track the specific task (i.e Monitor vehicle that not generated rawanna from the lease area, track vehicles that rawanna/tp expired, vehicle detected in unauthorized prone areas, tampering the device, irregularities at Weighbridges etc) and multi-screen based UI for different-different activities or dashboard.
- i) Furthermore, the system should be scalable, provide a user-friendly interface, maintain secure data handling with audit trails, support various notification channels such as SMS, email, or app alerts, and generate real-time and scheduled reports for effective management and oversight.
- j) Provide necessary technical support to setup operation control center.
- k) SI will do integration with external applications with the proposed system, as per the requirement and scope. The final selection of the integration will be determined collaboratively during project period based on the priorities, availability of APIs and necessary support from the API developer, which will be arranged by DMG,

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Rajasthan. It is important to note that the successful go-live of any module will not be contingent upon the integration.

All the required computer infrastructure and third party software license will be provided by the DMG Rajasthan.

6. Development of E-Rawnna/E-TP Confirmation software and Conveyor belt Integration:

- SI will develop software for generation and confirmation of E-Rawanna/TP software that will be used by the empaneled weighbridge holders to generate or confirm the e-Rawanna and e-TP. This software will be integrated with DMG Eawanna & ETP system for further processing. SI will study the existing software and developed the new software system by eliminating the current issues and irregularities by incorporating the image processing based validation and checks during weighment or rawanna/tp generation also provide compressive support to all weighbridge software after implementation. Detailed scope will be finalize during SRS phase.
- SI shall provide best fit solution to integrate various type of Conveyor belt with existing e-Rawanna system. SI shall develop a generalized & interpretable solution for above.

7. Faceless Management System/End to End Digitization:

Develop some specific online modules to monitoring and managing following activities of departmental officials and end users-

- a) Pre activities for delineation of Plot / Block for all mining leases.
- b) Provision of Lease Period Extension and Cancellation Processing.
- c) Online Provision for Grant of Major Mineral Composite License (CL)
- d) Provision for Grant of Gap Area for ML and QL, Strip of land in ML and QL Area.
- e) SI will develop provisions for following activities related to Mining Stack Holder- Provision of Entry forms and further internal processing work for Registration of Lease Deed, Issuance of memorandum, Mutation of Lease Area in Revenue Record, Consent to Establish (CTE) & Consent to Operate (CTO) (consent obtained under Air and Water Act from RSPCB), Appointment of Mine Manager/Agent /Owner, Notice of Commencement of Mining Operation, HEMM/Deep Hole Blasting Permission, Explosive Magazine/ Fuel Station License, Labour License, Employees Group Insurance, Initial/Periodical Medical Health Check Up of Employees, Central Ground Water Authority (CGWA) NOC, Approval of OB Dump Yard, Plantation, Stoppage of Mining Operation, Amalgamation of Leases, Intimation of Mine Accident/Disaster, Lease Mortgage, RTI, Certified Documents, ,Null and Void,

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Transfer of Mining lease, Submission of revised Lease Security, Performance Guarantee and Financial Assurance, Refund of Security, Financial Assurance, Performance Guarantee, Audit Para, Complaints, Land Acquisition, Re-allotment/Auction of cancelled/Surrender/Lapsed Mine.

SI will also do integration with various departments and will also develop online provisions desired and required by DMG Rajasthan.

8. M-Vigil App:

Mobile based application for regular monitoring of various complaints, issues raised by end user regarding illegal mining or other activities. SI will develop a dashboard & MIS system for proper monitoring of complaints or issues through M-Vigil app.

9. Mines Activity App:

SI will develop a mobile based application for approval and status reviewing of various web based online applications raised by end users. SI will develop a dashboard & MIS system for effective monitoring of online applications through this application.

10. Support and Maintenance of the entire existing system will be provided for a period of 3.5 years [1 year warranty of new developed module and 2.5 years complete existing and new developed system operations and maintenance (O&M)].

Project Timeline and Plan:

The Departmental Project Management Committee has decided to develop the system through NICSI-empanelled Tier-2 firms. The total project duration is 5 years, during which the selected System Integrator (SI) must complete the development of the web and mobile applications, as outlined in the scope, within 18 months. Following the development phase, the SI will provide comprehensive support services for the subsequent 42 months.

SI #	Milestone	Timeline
a)	Submission of System Requirement Study document	Within 4-months from the effective date of contract
b)	Design, development and UAT	Within 16-months from the effective date of contract
c)	Security Audit & Go live	Within 18-months from the effective date of contract
d)	Application Warranty	1-year from the date of go-live

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e)	Application Maintenance Support of Existing & New Modules of Rajmines Application	2.5 years from the date of completion of warranty
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The selected firm will deploy following technical resource at department other than core development team for a smooth functioning of project-

S No.	Resource	Nos. of Resource
1-	Sr. Project Lead	01
2-	Sr. Full- Stack Developer	01
3-	Help Desk Support	02
4-	Technical Resource for all four Zones	04
	Total	08

Selected firm will also deploy minimum following manpower for development of system at their development center. As per the departmental need or priority selected bidder have to increase team.

S No.	Resource	Nos. of Resource
1-	Senior Tech Lead	01
2-	Senior Developer	02
3-	Application Developer	03
4-	Mobile Developer	02
5-	GIS Developer	01
6-	DBA	01
7-	Application Tester	03
	Total	13

Deployment of Technical Manpower for Command Control Center

DMG Department will deploy 22 Technical resources (4 resources for DMG HQ Udaipur & 18 resources for 9 SME offices) before the Go-Live of application & control center setup. Manpower cost would be borne by DMG Rajasthan. SI would be responsible for Training to deployed manpower. SI also ensure support, maintenance & operation of control center with help of manpower deployed by DMG Rajasthan.

Project Cost:

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The total project cost, including development, O&M, technical manpower deployment, and OCC setup, is estimated at ₹20 crore over 5 years (1.5-year development + 1 year Warranty + 2.5 years O&M).

1. Application Development & Maintenance cost:

S.N	Description	Estimated Cost
1.	Design, Development & Maintenance cost of Various Modules & Mobile App	15 crore (Including all taxes)

NISCI Rate Contract for L2 Level Company Resources (with 2nd Increment):

Relevant Experience	Level	Minimum Monthly Remuneration (INR) - CTC	Operating Margin (OM : 8.49%)	Unit Price (CTC + Margin)	NICSI Margin @ 9%	Unit Price (CTC + Vendor Margin + NICSI Margin)	GST @ 18%	Unit Price (Inc of All)
A	B	C	D	E = C+D	F	G = E+F	H	I = G+H
0+ years	1	34,992.00	2,970.82	37,962.82	3,416.65	41,379.47	7,448.31	48,827.78
1 years	2	40,824.00	3,465.96	44,289.96	3,986.10	48,276.05	8,689.69	56,965.74
	3	46,656.00	3,961.09	50,617.09	4,555.54	55,172.63	9,931.07	65,103.71
	4	52,488.00	4,456.23	56,944.23	5,124.98	62,069.21	11,172.46	73,241.67
	5	64,152.00	5,446.50	69,598.50	6,263.87	75,862.37	13,655.23	89,517.60
	6	69,984.00	5,941.64	75,925.64	6,833.31	82,758.95	14,896.61	97,655.56
	7	81,648.00	6,931.92	88,579.92	7,972.19	96,552.11	17,379.38	113,931.49
5 years	8	87,480.00	7,427.05	94,907.05	8,541.63	1,03,448.69	18,620.76	1,22,069.45
	9	99,144.00	8,417.33	1,07,561.33	9,680.52	1,17,241.84	21,103.53	1,38,345.38
	10	1,04,976.00	8,912.46	1,13,888.46	10,249.96	1,24,138.42	22,344.92	1,46,483.34
	11	1,28,304.00	10,893.01	1,39,197.01	12,527.73	1,51,724.74	27,310.45	1,79,035.19
	13	1,51,632.00	12,873.56	1,64,505.56	14,805.50	1,79,311.06	32,275.99	2,11,587.05
10 years	14	1,74,960.00	14,854.10	1,89,814.10	17,083.27	2,06,897.37	37,241.53	2,44,138.90
	15	1,98,288.00	16,834.65	2,15,122.65	19,361.04	2,34,483.69	42,207.06	2,76,690.75
	16	2,21,616.00	18,815.20	2,40,431.20	21,638.81	2,62,070.01	47,172.60	3,09,242.61
	17	2,44,944.00	20,795.75	2,65,739.75	23,916.58	2,89,656.32	52,138.14	3,41,794.46
15 years	18	2,68,272.00	22,776.29	2,91,048.29	26,194.35	3,17,242.64	57,103.68	3,74,346.31

2. Following Server & Infrastructure will be required for the above project-

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#	Description	Specification	Estimated Cost
1	Server Infrastructure & System Software	Mentioned below	Estimated cost will be decide by the DoIT & RSDC.
2	Third Party Integration (Recurring charges)	Vehicle tracking API [Google Map/Bharat Map/ Open Street Map] and Fast-Tag API	30 Lac yearly (Approx.) depends on platform and uses. (Platform API Cost calculated based on approx. 40K vehicles used in mineral carrying with 1 minute refresh rate.)

Technical Specifications of required Server Infrastructure at State Data Center

Server for DC			
#	Server Name	Configuration	Qty
1	Server for All Module	2 X 16 Core,3.40 GHz frequency,16 GB*4 DDR4RAM, 1 TB HDD	2
2	Server for VTS	12 Core,3.40 GHz frequency,16 GB*2 DDR4RAM, 1 TB HDD	2
3	Database Server	2 X 12 Core,3.40 GHz frequency,16 GB*3 DDR4RAM, 1 TB HDD	2
4	API Server	12 Core,2.40 GHz frequency,48 GB DDR4 RAM, 1 TB HDD	2
5	Storage	5TB	1
Server for DR			
#	Server Name	Configuration	Qty
1	Server for All Module	2 X 16 Core,3.40 GHz frequency,16 GB*4 DDR4RAM, 1 TB HDD	1
2	Server for VTS	12 Core,3.40 GHz frequency,16 GB*2 DDR4RAM, 1 TB HDD	1
3	Database Server	2 X 12 Core,3.40 GHz frequency,16 GB*3 DDR4RAM, 1 TB HDD	1
4	API Server	12 Core,2.40 GHz frequency,48 GB DDR4 RAM, 1 TB HDD	1
5	Storage	5TB	1
Server for Pre-Production			
#	Server Name	Configuration	Qty
1	Server for All Module	2 X 16 Core,3.40 GHz frequency,16 GB*4 DDR4RAM, 1 TB HDD	1

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2	Database Server	2 X 12 Core, 3.40 GHz frequency, 16 GB*3 DDR4RAM, 1 TB HDD	1
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3. Infrastructure for Operation Control Center commissioning at 10 location [Directorate and 9 SME offices]-

#	Description & Specs	Estt. Cost (In Lac Rs.) (For 10 Locations)
1	55" x 6 Inter connecting LED display Panels for Directorate to visualize maps, GPS data, and live camera feeds and weighbridge monitoring. And Video Controller (as per DoIT&C Specs.)	15
2	85" LED Display panels to visualize maps, GPS data, and live camera feeds and weighbridge monitoring. (Qty-9 for Circle SME offices)	10
3	VMS (Video Management System)- Software to monitor, record, and manage live video feeds.	7
4	NAS/SAN Systems-Centralized storage for video recordings, weighbridge data, and GPS logs.	48
5	11- Workstations- Multiple operator workstations with dual monitors for efficient multitasking. (As per DoITC specs)	22
6	11- Multifunctional Printer (As per DoITC specs)	22.5
7	22- Computer System for Control Center technical resources (As per DoITC specs)	15.5
8	Other Network component i.e. Lan Cables, Switches, Router etc	20
9	Furniture and other Infrastructure	40
Total		200

Technical Specifications of above mentioned hardware are as follows:

a) No. of 4 Inter connecting Display LED Panel with controlling system installed at Directorate Control Center:

#	Features	Description of Requirement
1.	Make	
2.	Model	
3.	Screen Size	55 inch
4.	Panel Type	Direct LED
5.	Aspect Ratio	16:9
6.	Resolution	1920x1080 (FHD)
7.	Brightness	500 Cd/m ²
8.	Display Color	Minimum 8 bit -16 million

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9.	Response Time	<=12 ms (G to G)
10.	Viewing Angle	178/178
11.	Bezel Width	Maximum 2.3 mm(U/L) and 1.3 mm(R/B)
12.	Bezel Color	Black
13.	Inputs Ports	RGB,DVI-D, Display Port 1.2, HDMI, USB 2.0/3.0
14.	External Control	RS232C (In/Out), R145
15.	Remote Control	Wireless remote control with each display unit along with batteries
16.	Certification's	Safety- UL/BIS, EMC- FCC, Environment- Energy Star 6.0
17.	Usage Hours	24 hours x 7 days
18.	Fittings and Cables	The screen should be supplied with all necessary cables for connectivity that will be required to connect to the video wall controller and/or work stations and/or any other equipment's as per the requirement of the proposed solution.
19.	Warranty	5 years comprehensive Bidder/OEM warranty
20.	Combination of LED's	The bidder/SI shall ensure the 2x2/3x2/3x3/4x3 Etc. Combination of above mentioned LED tiled together contiguously to form one large Video wall. All necessary hardware (like video wall mounting bracket etc.) to stack LED screen together to be supplied, which should also be easily maintainable and accessible from the front of the video wall.
21.	Brightness calibration	Brightness of all LED's in a video wall has to be calibrated.
22.	Orientation:	The video wall panel should have capability to get mounted in either vertical (portrait) mode or Horizontal (Landscape) mode orientation.

b) LED Display Controller- Display Controller for video wall (2x2)

S.N.	Feature
1.	Make:
2.	Model:
3.	General Display Controller should be scalable to control video wall in a matrix of M x N (any combination of Row & Column) up to total of 4 screens. It should also be capable of taking universal inputs for video as well as data along with necessary wall management software's
4.	Networking Dual-port Gigabit Ethernet Controller inbuilt Support for Add on Network adapters
5.	Wall configuration: 4 DVI-D/ HDMI Outputs
6.	Resolution Output support: Minimum 1920x1080 or higher
7.	Universal Inputs 4 Universal Inputs (Should be able to accept at least 3 kinds of signals i.e.

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	DVI/RGB/HDMI)
8.	<p>Redundancy Support:</p> <p>System should have the redundancy support for following:</p> <ul style="list-style-type: none"> -Controller Hard Disk Data -Power Supply -LAN
9.	<p>Matrix Combination</p> <p>The video wall of any matrix combination (CR) should be capable of displaying multiple type of outputs as desired in CCC facility</p>
10.	Software Compatible Video Wall Management software to meet the required functionality
11.	5 Years Comprehensive Bidder/OEM Warranty

c) Technical Specifications for 85" Inch Professional LED Display Panel for Control Center established at 9 Circle (SME) Offices:

Parameter	Minimum Technical Specification
Size	85" Direct LED
Resolution	3840*2160 (4KUHD)
Brightness	500 Nits or higher
Viewing Angle (H/V)	178°
Display Colors	16.7 million
Color Gamut	72%
Audio	Built in Speaker (10W + 10W)
Input	HDMI 2.0 x 3, USB 2.0x1
Output	Digital out Audio/ Video
Duty Cycle	16/7 Hrs.
Special Features	UHD Signage with Built-in Software, Smart Share, Web browser, Button lock, Plug Play, HDR Pro/10/Plus
External Control	RJ45
Mounting	Wall Mount, all required accessories has to be supply for installation
Certificates	BIS
Compliance	ROHS
Warranty	3 years comprehensive on site OEM warranty

d) Video Management System (VMS) Application to manage Multiple Application and Display

Sl. #	Parameter	Specification
1.	App Control	Launch installed applications directly from Touch Control
2.	Multi-Profiles	Dynamically and instantly change connection profiles
3.	Other Features	<ul style="list-style-type: none"> • Allow content to be shown on the entire video wall from a

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	<p>single source</p> <ul style="list-style-type: none"> Allow the display wall to be split into smaller, virtual walls Allow resizing and positioning of sources anywhere on the display wall Allow sources to be overlapped on the display wall Allow source position and size to be saved as a layout for later use Support displaying the same source multiple times on the video wall, with each source instance able to be a different size Allow creation of layouts from pre-defined templates support bezel compensation support scaling on all inputs and outputs support overlap, stretch, cross screen, and picture in picture (PIP) of any input on the video wall auto detect and configure connected inputs
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e) NAS Specification

Component	Specification
Total Usable Storage	50 TB (after redundancy and overhead, depending on RAID configuration).
Drive Type	Enterprise-grade HDDs (12 TB to 18 TB per drive).
RAID Configuration	RAID 6 (preferred for fault tolerance) or RAID 10 (better performance but higher overhead).
Number of Drives (RAID 6)	5-6 drives (12 TB drives) or 4-5 drives (18 TB drives) for 50 TB usable storage.
Number of Drives (RAID 10)	8-10 drives (12 TB drives) or 6-8 drives (18 TB drives) for 50 TB usable storage.
Network Throughput	10 Gbps Ethernet (or higher such as 40 Gbps if required for higher speed).
Network Interface	SFP+ or 10Gbase-T for faster data transfer.
Backup and Redundancy	Hot Spare Drives; Snapshots and Replication for backup; Offsite/Cloud Backup Integration .
Power Supply & Cooling	Redundant Power Supplies for high availability; Active Cooling System for optimal temperature.
Security	AES-256 bit encryption for data at rest; Role-based access control (RBAC) and MFA for security.
Management	Centralized Management for monitoring and

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	diagnostics; Alerts & Notifications for critical issues.
Scalability	Modular Design for future expansion (adding drives or storage units).

4. Deployment of Technical Manpower for Command Control Center –

#	Location	No. of Manpower deployed	For Month s	Estt. Cost Man/Month	Total (in Lac Rs)
1	Directorate	04	42	25,000	42.00
2	9- SME Offices (2 at each office)	18	42	25,000	189.00
					GST 18%
					41.58
					Grand Total
					272.58

The department can offer the proposal to NCSI empanelled firm to provide and commissioning of above technical manpower at Command Control Center or can execute the separate tender as per the eligibility criteria.

Project Summary:

Sn	Proposed work	Estimated Expenditure (Crore)
1.	Development of New Modules and O&M of new and existing system for the period of 5 years	15.00
2.	Server Infrastructure & Application Software	Provided by RSDC
3.	Infrastructure for Operation & Control Center for 10 Locations	2.00
4.	Technical Resources for Monitoring & Support at Operation & Control Room	3.00
	Total Estimated Cost	20.00

Fund Management:

The expenditure for the project would be met through budget provisions allocated by the DMG Department.

Committee advised that:

1. RISL will procure centralized GIS software/ system so that the same software/ system may be used by other Govt. Departments like Food, Health, Police, Mines, Etc. as and when required.

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2. Department may coordinate with the GIS team of Department of Information Technology & Communication for Geo-Fencing related & any GIS integration required in application.

The Committee accords technical approval on the proposal having estimated cost of Rs. 2000.00 Lakh (other additional cost for State Data Center infrastructure & system software requirement would also be borne by Mines & Geology Department).

Meeting ended with the vote of thanks to the chair.

This bears the approval from competent level.

(Akhilesh Mittal)
Technical Director

Copy for information and necessary action to:

1. PS to Addl. Chief Secretary, Finance Dept., Rajasthan, Jaipur
2. PS to Principal Secretary, Mines & Petroleum Department, Rajasthan, Jaipur
3. PS to Secretary, Planning Dept., Rajasthan, Jaipur
4. PS to Secretary, Agriculture And Horticulture Department, Rajasthan, Jaipur
5. Sr. PS to Secretary and Commissioner, Dept. of TI&C, Jaipur
6. PS to Commissioner, Agriculture Department, Rajasthan, Jaipur
7. PA to Joint Secretary, Finance (Expenditure-III) Dept., Raj., Jaipur
8. PA to Director (Technical), RajCOMP Info Services Limited, Jaipur
9. PA to Director, LNMIIT, Jaipur
10. Shri R.L. Solanki, Technical Director, RISL, Jaipur
11. PS to DDG & SIO, NIC, Rajasthan, Jaipur
12. Shri Giriraj Kumar Katheeria, Additional Director, T.A.D., Udaipur
13. Smt. Poonam Choudhary, Chief Accounts Officer, Dept. of IT&C, Jaipur
14. Shri S.S. Shekhawat, Addl. Director Agriculture (Extension), Jaipur
15. Dr. Yuvraj Singh Gurjar, Additional Director, Dept. of IT&C, Jaipur
16. Shri Jayesh Kumar Ninama, ACP(Dy. Director), Mines & Geology Department, Udaipur
17. Shri Tarun Kumar Meena, A.C.P. (Deputy Director), Agriculture Department, Jaipur
18. Shri Ashutosh Bishnoi, A.C.P. (Deputy Director), Dept. of IT&C, Jaipur
19. OIC- Website to upload the MoM on the website of DoIT&C

Technical Director

Annexure-A

104th Meeting of SeMT held on 06-03-2025 - List of Attendees

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S. No.	Name of officer	Designation
1.	Smt. Archana Singh	Secretary & Commissioner, Dept. of IT&C/ Chairperson, SeMT
2.	Shri Anil Kumar Singh	Director (T), RISL
3.	Shri Akhilesh Mittal	Technical Director, Dept. of IT&C
4.	Shri R.L. Solanki	Technical Director, RISL
5.	Shri Jitendra Verma	SIO, NIC, Rajasthan
6.	Shri P.S. Meena	SME (V), Dept. of Mines & Geology, Udaipur
7.	Smt. Poonam Choudhary	Chief Accounts Officer, Dept. of IT&C
8.	Shri S.S. Shekhawat	Additional Director, Agriculture (Extension) Dept.
9.	Dr. Yuvraj Singh	Additional Director, Dept. of IT&C
10.	Smt. Monika Chaudhary	S.A. (Joint Director), RISL
11.	Shri B.L. Jat	Joint Director, Agriculture Dept.
12.	Shri Satish Chand Gupta	Accounts Officer, Finance (Exp.-III)
13.	Shri Jayesh Kumar Ninama	A.C.P. (Dy. Director), Dept. of Mines & Geology, Udaipur
14.	Shri Tarun Kumar Meena	A.C.P. (Dy. Director), Agriculture Dept.
15.	Shri Tara Chand Bachalya	Deputy Director, Agriculture (Technical)
16.	Shri Mahendra Kr. Meena	Programmer, RISL
17.	Shri Hemant Menaria	Assistant Programmer, Dept. of Mines & Geology, Udaipur

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