GOVERNMENT OF RAJASTHAN
Department of Information Technology & Communication

सूचना प्रौद्योगिकी और संचार विभाग

No.: F.5 (1184)/DoIT/Tech/2018/ 01373/2020   Dated: 27.02.2020

Minutes of 79th meeting of SeMT dated 04-02-2020

The Seventy Ninth (79) meeting of the State e-Governance Mission Team (SeMT) was held under the Chairmanship of Principal Secretary, IT&C on 4th February, 2020 at 03:00PM in Bhamashah State Data Centre (BSDC), Jhalana Doongari, Jaipur. List of participants is enclosed at Annexure –"A".

The following decisions were taken in the meeting:

1. Project :   Computer hardware procurement under e-NAM project

The Committee was informed about the project proposal of Directorate of Agriculture Marketing as to procure computer hardware & allied items under e-National Agriculture Market (e-NAM) Project of Ministry of Agriculture, Govt. of India. The e-NAM Portal provides a single window services for all APMCs related information and services. This includes commodity arrivals & prices, buy & sell trade offers, provision to respond to trade offers, among other services. While material flow (agriculture produce) continues to happen through APMCs, an online market reduces transaction cost and information asymmetry.

Scope of Work (SoW)/ Requirement details:
Details of the proposed procurement of computer h/w & allied items are as under:

(Rs. in Lakh)

S. No.	Item Description	Qty. (No.)	Estimated Unit Cost	Total Estimated Cost
1	Desktop Computer (All in One) with UPS	290	0.8	232
2	Laptop	54	0.8	43.2
3	Tablet	52	0.7	36.4
4	Multipurpose Printer (Printer, Scanner & Photocopier)	164	0.4	65.6
5	Handheld POS Terminal	96	0.325	31.2
6	Touch Screen kiosk	51	1.5	76.5
7	Projector with Display wall screen	50	0.65	32.5
8	LED Display screen	7	0.65	4.55
9	Thermal Printer	100	.07	7.00
	Total	**864**	**5.895**	**528.95**

Technical specifications are attached at Annexure-"B".

Financial Implication:
Estimated cost of the project is Rs. 528.95 Lakh.

Fund Management:
Expenditure would be met from the funds available with Directorate of Agriculture Marketing.

Keeping in view the importance of work of Directorate of Agriculture Marketing, technical approval has already been accorded by Principal Secretary, IT&C as being the chairman of SeMT.

The Committee accords ex-post-facto technical approval of the project with estimated project cost of Rs. 528.95 Lakh.

2. Project : IT-Solution for Rajasthan Real Estate Regulatory Authority (RERA)

The Committee was informed about the project proposal. Govt. of India has enacted the Real Estate (Regulation and Development) Act 2016 and all the provisions of the Act have come into force as on 01-05-2017. Under this Act, Govt. of Rajasthan has notified the Rules, 2017. Constituted under the said Act and Rules, Rajasthan RERA is working towards development of real estate sector by maintaining transparency, accountability and financial discipline; ensuring compliances and protecting buyer's interests.

Scope of Work (SoW):

At present, in Rajasthan RERA, initial stages of various processes are online, while mid-stream processes and end-processes as also follow up and monitoring are off-line. But the vision of the RERA Act is to move towards full automation of RERA's processes. The proposed scope of work is as under:

- Current System study and Gap Analysis
- Enhancement of existing IT application of RERA based on gap analysis
- Configuration and Implementation of enhanced IT application
- Integration with SSO, e-Sign, e-Vault, Raj Sewa Dwaar, UID auth. App
- Capacity Building
- Helpdesk services
- Facility Management Services (FMS)

The SoW is to be executed in phased manner as mentioned below-

KEY ACTIVITIES TO BE UNDERTAKEN IN PHASE-I:

- Application Development
- GIS based Solution
- Analytics
- Application Testing
- Training
- Helpdesk Support

Overview of proposed Functional Architecture:

Layered view of system

The 3-tier architecture (expandable to N-tier architecture) has been proposed for the Application Solution. Issues related to performance, manageability and scalability can be addressed by considering this option. Overall, this approach provides a more manageable system and less contention for resources. The application will be deployed on the central servers at Data Centre in Jaipur.

The proposed application is planned to interface with following layers & components

   i. Access Channel
   ii. Single Sign on (SSO)
   iii. Application User Interface
   iv. RERA Application Core Component
   v. Workflow Engine
   vi. Search Engine
   vii. Subscription/Notification
   viii. Business Analytics/ MIS Reports (Reporting Tool)
   ix. Application Integration
   x. Document Repository
   xi. Application Database

Proposed Technology Stack:

The current application shall be redesigned in latest technologies. The development of entire application in latest technology shall enhance the operational, transition & revision characteristics of the application. The existing development stack is ASP.Net & MVC 5.0

The proposed technology for development of application is as below:-

Front End Technology	Backend Technology
Angular JS	Visual Studio 2013
Advanced Analytics – Qlickview / Tableau	SQL Server 2014

The new application will be developed on angular JS which provide below advantages:

Simple & Improved Design Architecture	Declarative User Interface	Lesser timeline	Lesser code & increased development efficiency	Code Reusability
Dependency Injection	Two-Way Data Binding	MVVC software design pattern	Improved server performance	Parallel Development & Convenient Testing

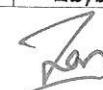## PROPOSED INITIATIVES FOR PHASE-II-

- Implementation of Blockchain Technology
- Use of Augmented Reality & Virtual Reality Technologies
- VR Innovation in Construction
- AR VR contribution in Building Design and Construction
- Real Time Context Capture Using Drones / UAVs
- Uses for Drones in Construction Projects

Financial Implication:
Estimated project cost for the Phase-I is Rs. 421.45 Lakh.

Break-up of the financial cost estimates of Phase-I:

1. Team for Application Development Work

S. No.	Category of Resource	No. of years of experience	No. of Resource required	Tentative Efforts in Months	Approximate Remuneration per month including GST	Total Remuneration per month including GST
1	Technical Project Manager	10	1	12	227,723.00	2732676.00
2	Senior DevOps	7+	1	12	188,860.00	2266320.00
3	DevOps	5+	4	12	136,361.00	6545328.00
4	Technical Assistant	3	3	12	30,000.00	1080000.00
5	Help Desk Executive	2	1	12	30,000.00	360000.00
6	Consultant with <3 yrs. exp. (Management/ Functional Profile)	3	1	4	272,722.00	1090888.00
	Grand Total (for Application Development Work)					1,40,75,212.00

2. Team for FMS Work (For 4 Years post Development)

S. No.	Category of Resource	No. of years of experience	No. of Resource required	Tentative Efforts in Months	Approximate Remuneration per month including GST	Total Remuneration per month including GST
1	DevOps	7+	3	48	136,361.00	19635984.00
2	Technical Assistant	3	2	48	30,000.00	2880000.00
3	Help Desk Executive	2	1	48	30,000.00	1440000.00
	Grand Total for FMS Period					23,955,984.00

Cost of Capacity Building and Change Management

S. No.	Category of Officers	No. of Officers	No. of Days of training	Approximate per day per user cost of training including GST	Total including GST (Amount in Rs.)
1	RERA Officers	20	2	1,000.00	40,000.00
2	Officials of Builder Association	10	1	350.00	3,500.00
3	Officials of Agent Association	10	1	200.00	2,000.00
	Total of Capacity Building				**45,500.00**

SUMMARY OF THE TOTAL ESTIMATED COST FOR PHASE-I:

S. No.	Item description	Total Estimated Cost in INR including Tax
1	**Application Development Cost (1 year) including FMS of 4 Years** Note: - CAPEX cost includes one-time application development cost including a cost of integrations with other app. and dev. of mobile app, security audit.	1,40,75,212
2	OPEX Cost includes 4 Year FMS cost of application maintenance and support which includes any change request or update of patches and overall ensuring uptime of application.	2,39,55,984
3	**Training Cost** Note:- One time training cost of RERA officers, participants from builder association and participants from agent association	45,500
	Total Cost (A)	**3,80,76,696**
4	Contingency Cost (B) @ 2% of Total Cost (A)	761,534
5	**Total Cost (C=A+B)**	**3,88,38,230**
6	RISL Charges (D)	33,07,058
	Grand Total- Overall Project Cost (C+D)	**42,145,288**
	Say Rs.	**421.45 Lakh**

Year-Wise Break-Up of Cost Estimates (Excluding Tax, Contingency and RISL Charges)

S. No.	Item description	CAPEX Cost (1st Year)	OPEX Cost			
			2nd Yr.	3rd Yr.	4th Yr.	5th Yr.
1	Application Development Cost including FMS of 4 Years	1,19,28,146	5,075,420	5,075,420	5,075,420	5,075,420
2	Training Cost	38,559	-	-	-	-
	Total	11,966,705	5,075,420	5,075,420	5,075,420	5,075,420

Fund Management:
Expenditure would be met from the funds available with RERA.

Keeping in view the importance of work of RERA, technical approval for Phase-1st has already been accorded by Principal Secretary, IT&C as being the chairman of SeMT.

The Committee accords ex-post-facto technical approval of the project for Phase -1st only with estimated project cost of Rs. 421.45 Lakh.

3. Project : **Supply of Hand-Held Terminals (POS Devices) along with Technical Support Services for Service Delivery under Integrated Child Development Services (ICDS) in the State of Rajasthan**

The Committee was briefed about the project proposal of Women & Child Dev. (ICDS) Department. The Dept. intends to equip Anganwadi Centres with PoS with SIM based GPRS as well as WiFi connectivity. The Take Home Ration (THR) commodities will be given manually at Anganwadi Centre but authentication and record of transaction on server is to be done by a PoS device.

Scope of Work (SoW):

The scope of work is divided into three major parts:

- Supply, Installation and Commissioning of the Hand-Held Terminals (PoS) as mentioned below:

S.No.	Item	Quantity
1.	Electronic Biometric Handheld POS Devices With PCI EMV L1 + L2 MagStripe Card Reader and Micro ATM functionality	250

Technical specifications are attached at Annexure-"C".

- Facilitate development, Integration and installation of device application with back-end Application Software for both e-PDS and e-Mitra (being developed separately by DoIT&C/RISL)
- Technical Support Services including Support for Registered Devices (RD) as per UIDAI regulations

Financial Implication:

Estimate cost of the project is Rs. 61.00 Lakh.

Fund Management:

Expenditure would be met from the funds available with WCD (ICDS) Dept.

Keeping in view the importance of work of WCD (ICDS) Dept., technical approval has already been accorded by Principal Secretary, IT&C as being the chairman of SeMT.

The Committee accords ex-post-facto technical approval of the project with estimated project cost of Rs. 61.00 Lakh.

4. Project : Facility Management Services (FMS) for Right To Information (RTI) Portal

The Committee was informed that RTI Portal was developed and implemented Dept. of IT&C/RISL in phased manner as mentioned below:

- **Phase-I**: This phase covered application software development for end to end RTI Application and First Appeal Process. The total cost of this phase was Rs. 24.83 lacs. The work order was issued on 21-11-**2012**.
- **Phase-II**: This phase covered development for end to end Second Appeal and Complaint Process. It also included implementation of RTI Portal in various departments of Government of Rajasthan. The total cost of this phase was Rs. 17.15 lacs. The work order was issued on 01-10-**2013**.
- **FMS for 2 years**: This phase covered enhancement of second appeals and complaints process as per requirements of Rajasthan Information Commission along with implementation of Application and Appeal Process in departments. The total cost of this phase was Rs. 24.27 lacs. The work order was issued on 05-11-2014.

Current status of the Project:

The current phase is providing maintenance work of the Portal as per requirements raised by Rajasthan Information Commission (RIC), User Departments, and Administrative Reforms Dept. (The Nodal Department for RTI). The total cost of this phase is Rs. 36.00 lacs, and time duration of this phase will be elapsed on 17-03-2020.

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Justification of the requirement:

RTI Portal is planned to be used in all Department(s) across the State; for online submission of RTI applications and its' processing through available workflow. For State-wise implementation of Portal, there is requirement of continuous support to the user departments' right from user data creation, application enhancement in line with user perspective, hands on training and helpdesk. Technology upgradation and integration with SSO and e-office will also be a requirement for future upgrades.

Scope of Work:

In view of the above mentioned facts, there is a requirement for FMS support for further 3 years through RajCOMP Info Services Ltd. (RISL) through open tender process for maintenance and further enhancement in RTI Portal with technical assistance as follows:

Role	Nos.	Rate per Man Month (in INR)	Deployment of Man-Months	Total Amount (excluding RISL service charges and taxes)
Technical Project Manager	1	1,50,000	36	54,00,000
Sr. Developer	2	1,00,000	72	72,00,000
Total			36	1,26,00,000

Financial Implication:

The total estimated cost of FMS for three (3) years would be Rs. 126.00 Lakh (excluding RISL Service Charges and applicable taxes). Year-wise break-up of the estimated cost is Rs. 42.00 Lakh per annum.

Fund Management:

Expenditure would be met from the fund available under "Backend & New Projects" Budget Head of Dept. of IT&C.

The Committee accords technical approval of the project with estimated project cost of Rs. 126.00 Lakh.

5. Project : Online Integrated Portal for Farmers

The Committee was briefed about the proposal that Agriculture Department has been envisaged the proposal in compliance to the agriculture/ farmer specific announcement made by Hon'ble Chief Minister of Rajasthan while presenting the modified budget on 10-07-2019.

The verbatim of the same are as mentioned below

Point No. 17	किसान भाईयों के लिए 'Ease of Doing Business' की तर्ज पर 'Ease of Doing Farming' की ओर पहला बड़ा कदम उठाते हुए मैं रू. 1 हजार करोड़ के एक 'कृषक कल्याण कोष' (K-3) के गठन की घोषणा करता हूँ। इस कोष को किसानों को उनके उत्पादों का यथोचित मूल्य दिलाने हेतु काम में लिया जायेगा।
Point No. 23	राज्य सरकार ने प्रदेश के किसानों के लिए फरवरी, 2019 से किसान सेवा पोर्टल शुरू किया है, जिसका अब तक लगभग 50 लाख किसान उपयोग कर चुके हैं। किसान इस पोर्टल के माध्यम से विभिन्न सरकारी योजनाओं का लाभ एक ही जगह पर ऑनलाइन ले सकेंगे। साथ ही, यह पोर्टल सरकार के नीति निर्धारण में भी उपयोगी सिद्ध होगा।
Point No. 142	किसानों के लिए एक online integrated platform तैयार करवाया जायेगा, जिसमें कृषि, विपणन, पशुपालन, डेयरी, horticulture आदि की गतिविधियों को एक जगह शामिल किया जायेगा।

Specifically, with regard to compliance of Point No. 142 of budget announcement, following has been decided regarding its implementation:

- The online integrated platform will be the single window for delivery of services to farmers wherein only Aadhaar/ Jan-Aadhaar shall be used as identity for secured delivery of services to farmers so that farmer does not have to submit various documents again and again in order to establish his/ her identity.

- The proposed integrated platform for framers should be able to identify the eligibility of farmer for availing the service based on services availed in the past.

- The services of State Govt./ Central Govt. including NIC shall be on boarded on proposed online Integrated Platform for farmers.

Stake holder Departments:
- Dept. of Agriculture, Dept. of Horticulture, Dept. of Animal Husbandry, Dept. of Agriculture Marketing, Dept. of IT&C, RajCOMP Info Services Ltd. (RISL)
- Farmers
- Various Govt. depts. and agencies involved in implementation farm sector schemes and for benefit for framers.

Scope of Work (SoW):

S.No.	Areas of Action	Proposed Solution
1	Creation of facilities for farmers from "agricultural produce to farmer income" by providing the solutions to farmer related subjects in a time bound manner through digital platform.	Single window platform for Integrated portal for service delivery
2	Providing facility for single registration so that farmer has not to register himself again and again in order to avail various services.	• Farmer Databank- info on Farmer, Land & Crop. • Integration with Kissan Portal, online Girdavari/ e-Dharaa, including Aadhaar based registration of farmer unique on-time single registration. • Auto calculation of criteria for eligibility under various schemes.

3	Development of online single platform by integrating and development of various software for Agriculture, Horticulture, Animal Husbandry, Co-operatives and providing various services, information and other related activities.	• Development of end to end IT solution for all subsidy services (Calculation, transaction, disbursement) including A.S./F.S./physical verification through mobile app/ Aadhaar based DBT:-
		  o Agriculture departments
		  o Horticulture departments
		  o Animal Husbandry
		• Integration of various services offered by other departments.
		• Price Gap Subsidy

4	Development of various mobile applications in order to disseminate various information to farmers.	• Agri-Mobile information center • Agri-Extension Management System • Market prices • Online e-Marketplace (Field to market) • Crop pest management • Package of practice (PoP) • Notification modules • Weather Information o GIS based Weather Information Management Solution (Flood & drought monitoring and its

S.No.	Areas of Action	Proposed Solution
		impact on agriculture)
5	Creation of facilities for response to FAQs for smooth resolution of various queries of farmers on schemes/ activities/ information/ application.	Farmer engagement module integrated with Raj Sampark and Kissan call center through mobile apps. - Status of any grievance, to be integrated with Raj Sampark, Kissan call center module to view status of services applied by farmer.
6	Creation of facility for providing various information & knowledge on agriculture & related activities like information on inputs/ availability/ source of service delivery/ prevalent mandi prices/ complete information on input/ seed/ fertilizer/ insecticide including its availability and its measurement of quality.	• Agri- Mobile information center • Market prices • Online e-Marketplace (Field to market) • Dealer Module (seed, fertilizer, insecticide, pesticide) • Stock management (Inventory) Module • Farm machinery module • Farm input (Seed Registration, Bio-Fertilizer, Machinery Implement, Farm Infrastructure)
7	Creation of facilities for providing information and knowledge on animal husbandry and providing information and process of application for entire activities like facilities/ treatment of diseases of cattle/ improvement in cattle breeds/ cattle feed	End to end IT application for subsidy and scheme modules for treatment of diseases of cattles / improvement in cattle breeds / cattle feed. Subsidy (Calculation, transaction, disbursement) Various mobile apps:- • Mobile app for Cattle doctor- feeding, breeding management, disease and control
8	Creation of facilities of information for farmers on agri-business/ expected mandi prices/ warehouses/ loan on storage/ preliminary grading/ option of e-NAM & available markets/ marketing of organic products/ information on out-reach markets/ facilities in value chain/ availability of resources and information for availing the services.	Agri Market Module • Market- Integration with e-Mandi, e- NAM, • Storage- Integration with e-NWR (Central govt. app) • Organic products- e-Market place based on buyer and seller concept • Location based services (Mapping of agro processing centers, mandis, warehouses, agri facilitation centres), Listing of various Geo-Tagged locations of agri service related centers.

Financial Implication:

(Rs. in Cores)

S. No.	Description of the activity	Financial Year-wise expenditure on each activity (Inclusive of GST)					Overall Estimated expenditure on each activity
		2019 -20	2020 -21	2021 -22	2022 -23	2023 -24	
1	**PHASE-1- Development of Integrated Service Delivery Interface for Farmers**						
1.1	1. Farmer Profile- 2. Integrated Platform for Service Delivery- 3. Subsidy Module- 4. Field to Market Module- 5. Information & notification	4.00	3.00	1.20	0.54	0.32	**9.06**

Sr	Description						Total
	module- 6. Farm input- 7. Stock Management (Inventory) Module 8. Farmer Engagement Module- 9. Location based services (Geo-Tagging of locations of agri-services) 10. Dealer Module 11. Price Gap Subsidy 12. Services offered by Animal Husbandry 13. Organic Farming 14. Dashboards- 15. Other Service Basket-						
2	PHASE-2- Implementation of Farm Chat BoT & Crop Data Models						
2.1	1. Farm Chat Bot 2. Climate resilient models 3. Predictive models-(Any6 Models) 4. Analytics & Dashboards	-	3.34	2.67	1.87	0.66	8.54
3	PHASE-3- Implementation of GIS based Crop Identification & Estimation Solution						
3.1	1. Crop Identification & Estimation Solution including relevant mobile apps (6). 2. Weather Information Management Solution	-	2.12	0.95	0.95	0.95	4.97
	Grand Total - PHASE 1 to 3	4.00	8.46	4.82	3.36	1.93	22.58
4	2% Contingency Note: - Contingency cost is estimated @2% of overall cost in that expense head to meet out change requests and price escalation and any other item costing the implementation of project over a period of 5 years. Contingency charges are indicative only and it shall be based on actuals. Contingency cost shall be demanded by RISL only when activities under contingency expenses are decided to be executed by department.						0.45
5	Total Cost (Grand Total - PHASE 1 to 3 + 2% Contingency)						23.03
6	RISL approved Service Charges Note:- a) up to 1 Crore- 10% Total Cost b) Greater than 1 Crore and less than 5 Crore- 8% of Total Cost c) Greater than 5 Crore- 6% of Total Cost						1.50
7	GST on RISL Service Charges (@18% on Sr. No. 6)						0.27
	Grand Total Year-Wise Cost in INR including RISL Service Charges & GST						24.80
						Say Rs.	2480.00 Lakh

Fund Management:
Expenditure would be met from the funds available with Agriculture Department.

Keeping in view the importance of work of Agriculture Department, technical approval has already been accorded for Phase 1st of the project (having estimated cost of the same as Rs. 1004.00 lakh) by Principal Secretary, IT&C as being the chairman of SeMT.

The Committee accords ex-post-facto technical approval of the project for Phase-1st only having estimated project cost of Rs. 906.00 Lakh.

6. Project : AMC/ FMS & Procurement of h/w for RajVC

The Committee was informed about the project proposal. Government of Rajasthan has earlier setup hardware based VC solution at Department Headquarters, Department offices, District Headquarters (2 at each DHQ), SDM/ Tehsil offices, Municipal towns and Block Headquarters to support the administration in day-to-day work, operations and bring speed, efficiency, reliability and accountability in overall system of Government-to-Government (G2G) functioning. Key facts of the project are as under:

- The project of "Establishment of Video Conferencing Facility at Block/ Tehsil level" having estimated project cost of Rs. 70.64 Crores had been technically approved in the 58th meeting of SeMT held on 06-07-2015.
- The project has been completed on 30.09.2019.
- As per budget announcement of FY 2014-2015 and FY 2016-2017, 1850 and 15000 IP phones has been procured respectively through RISL.
- The AMC of IP Phone procured against budget announcement of FY 2014-2015 are going to expire on 31.05.2020 and for FY 2016-2017 are going to expire on 30.06.2020.

Scope of Work (SoW):
The FMS and AMC services of the equipment procured under the aforementioned projects are required to be executed for uninterrupted availability of communications services.

Financial Implication:
The estimated project cost of Maintenance (AMC) & Facilities Management Services (FMS) of VC equipment & IP Telephony equipment and procurement of VC equipment will be Rs. 5000.00 Lakh (approx.) as per below mentioned details:

S. No.	Details	Amount (in Lakh)
1	AMC of existing VC equipment	1500.00
2	AMC of existing IP Telephony equipment	1500.00
3	Procurement of new VC equipment	1000.00
4	FMS of existing VC and Telephony equipment	1000.00
	Total	5000.00*

*This expenditure is to be spent over in three (3) years.

Fund Management:
Expenditure would be met from the State Budget under "Video Conference at Block Level" Budget Head of Dept. of IT&C.

The Committee accords technical approval of the project with estimated project cost of Rs. 5000.00 Lakh.

7. Project : Procurement of Cryptographic USB Tokens

The Committee was briefed about proposal. The Controller of Certifying Authority (CCA), Government of India has authorized RISL as a Certifying Authority (CA). According to Section 24 of Information Technology Act 2000, a Certifying Authority means an agency that has been granted a license to issue Digital Signature Certificates, SSL certificates and e-Sign facility. A Certifying Authority is a trusted body whose central responsibility is to issue, revoke, renew and provide directories of Digital Certificates.

Digital-certificates are used to secure the transfer of information, assert identity information and verify the authenticity of messages through public key cryptography and digital signatures.

Currently various departments are approaching RISL (CA) for issuance of DSCs for digital signature and encryption. RISL has already established PKI infrastructure as per guidelines of CCA in order to create, store and distribute digital certificates and e-Sign facility. RISL requires PKI based USB crypto tokens to provide its users (Officer of Government Departments) for secure storage of digital certificates and private keys. This shall allow public-key cryptography and digital signatures to be leveraged securely, without risk of leaking the private key information.

Scope of Work:

To accomplish this objective of safe & secure use, storage and movement of digital signature certificates, RISL intends to procure CCA mandated FIPS certified Crypto USB Token as mentioned below:

Supply of Cryptographic USB tokens
- Supply of CCA mandated FIPS certified Cryptographic USB token as per work order issued by RISL
- Each Cryptographic USB token shall inclusive of
    a. Installation Manual
    b. Warranty Certificate

Technical Specifications:
Technical specification are attached at Annexure-"D".

Financial Implication:
Estimated Cost of Procurement of Cryptographic USB Tokens for One Year is as following:

S.No.	Item	Quantity	Unit Cost (INR)	Total Cost (INR)
1	Cryptographic USB Token	100000	200	20000000
	Total Cost of Procurement of Cryptographic USB Tokens			**20000000**
			Say Rs.	**200.00 Lakh**

Fund Management:
The expenditure would be met from the funds available under "e-Sign Project" Budget Head of Dept. of IT&C.

The Committee accords technical approval of the project with estimated project cost of Rs. 200.00 Lakh.

8. Project :   Network connectivity under RajNET

The Committee was informed that the SeMT had accorded technical approval of RajNET project with estimated revised project cost of Rs 147937.00 Lakhs in its 74th meeting. Under the project Rs 52000.00 Lacs was proposed/ kept for works/ activities like MPLS & P2P connectivity to government offices, TPA, Network equipment procurement and upgradation of existing network infrastructure.

The existing rate contract for MPLS & P2P connectivity are being expired on 13-02-2020 & 29-05-2020 respectively and no active rate contract available for network equipment.

Scope of Work:
- Bandwidth (MPLS/ P2P) & ILL (New / Renewal/ Upgradation)
- Bandwidth (MPLS) with network equipment (New Connectivity)
- Network equipment (New connectivity on OFC Network)
- LAN Infra at user department

Financial Implication:

The estimated project cost for procurement of Bandwidth (P2P/MPLS/ILL), Network equipment and upgradation of existing network infrastructure for three (3) years period will be **108.20 crores** (approx.) as per below mentioned details:

(Amount in Lakh)

S.No.	Connectivity Item	Estimated Qty./Links	Estimated Expenditure Amount
1	Bandwidth (MPLS/P2P) & ILL (New/ Renewal/ Upgradation)	1150	7890.00
2	Bandwidth (MPLS) with network equipment (New Connectivity)	1000	1610.00
3	Network equipment (New connectivity on OFC N/w)	1500	1220.00
4	LAN Infra. at user department	2000 I/O Nodes	100.00
		Total	10820.00*

*This expenditure is to be spent over in three (3) years.

Fund Management:

The expenditure would be met from the funds available under "RajNET Project" Budget Head of Dept. of IT&C.

The Committee accords technical approval of the project with estimated project cost of Rs. 10820.00 Lakh.

9. Project : Computerization of Sub-Registrar Offices under DILRMP by Registration & Stamps Dept.

The Committee was briefed about the project proposal received from "Registration & Stamps" Dept., Ajmer and the current status of the ePanjiyan software developed by NIC and is being used for the purpose of registration in the State. All SROs are using the web-enabled application. Based on the financial sanction provided earlier, the hardware are provided to all SROs and position of hardware based on documents registered is as under –

Category	Average Number of Docs. Registered in a day based FY 2018-19	No. of Sub Registrar Offices	SROs have More than 5 years old h/w*	SROs have More than 4 years and less than 5 years old h/w*	SROs have More than 1 year and less than 4 years old h/w*
A	More than 50	20	08	03	09
B	Less than 50 & More than 25	51	06	22	23
C	Less than 25 & More than 5	334	46	90	198
D	Less than 5	124	11	22	89 + (2 no h/w)
	Total	529	71	137	319 + (2 no h/w)

* Hardware included (Computer, Printer, Scanner, FPR and UPS)

Scope of Work (Proposed Plan):

It has been planned to take the services of the department to the next level with following facilities -

- Paperless Registration
- Fully Time Slot Based System for Registration
- Mobile app is to be developed with various features like site inspection, on ground valuation etc. for seamless functioning for SROs and facility for the public at large.
- Electronic Sign Pad for parties
- E-Signing / Electronic Sign Pad for document signing
- Making Legacy records available to the public in searchable format.
- Linkage to the Banks to process & forward agriculture land mortgage application online

- Automation of mutation process
- Better infra & ambiance to the citizens during registration process

Financial:

Fund Sanctions under DILRMP

Following Administrative and financial sanction has been issues by the Settlement Commissioner and Nodal Officer, under Digital India Land Records Modernization Programme (DILRMP) Rajasthan under various components of IGRS –

S. No.	Work Description	Amount Sanctioned (In Cr)	Remarks
1.	Hardware for Sub-registrar offices	11.63	Sanction Order No. F/4(1)/DILRMP/BHPRAAA/2014-15/ 297-306 dated 31.01.2020
2.	Maintenance of ePanjiyan Software	3.00	Sanction Order No. F/4(1)/DILRMP/BHPRAAA/2014-15/ 297-306 dated 31.01.2020
3.	Preservation of old documents	22.11	Sanction Order No. F/4(1)/DILRMP/BHPRAAA/2014-15/ 297-306 dated 31.01.2020
4.	Connectivity between SROs and Revenue offices	18.14	Sanction Order No. F/4(1)/DILRMP/BHPRAAA/2014-15/ 6235 dated 25.09.2019

However, the actual hardware availability & its suitability and requirements shall be accessed by the IGRS for each SRO. For this the location wise actual hardware and other allied IT infra shall be prepared by the IGRS on case by case basis on merit, to ascertain the actual requirements/suitability and to ensure seamless operations &smooth implementation of application software and also keeping the future needs of the department in mind and facility to the public at large.

Settlement Commissioner & Nodal Officer, DILRMP has issued sanction of Rs. 11.63 Cr for procurement of Hardware and allied IT infra and it is proposed that the executing agency for IT infra for this work be RISL/NICSI and for Non-IT infra through department.

For ePanjiyan Software:

Application Software (ePanjiyan) Maintenance and future enhancement:

NIC / NICSI has developed the ePanjiyan application software and therefore, in turn shall also be providing the software maintenance, support and up gradation of application software as per the future needs of the department. NIC has submitted application software maintenance, technical support and up gradation proposal vide letter no. NIC/RSU/IGRS/5185 dated 29.01.2020 for five year of approx. Rs. 5.3 Cr giving year wise maintenance cost.

Rs. 3.00 Cr is sanctioned by Settlement Commissioner & Nodal Officer, DILRMP, therefore, IGPRS proposed to have application software maintenance for three years. As of now, approximately Rs. 300 Lakh is required for above said purpose-

Particular	Amount (In Lakh)
IGRS ePanjiyan software maintenance, enhancement with support and helpline system	**300.00**

For Scanning & preservation of old documents and data entry of legacy encumbrance:

It is highly required that old registered documents which were either generated manually or through software in the past, be preserved and made available to the public at large on a public domain with searching facility.

As per the requirements of DILRMP and EoDB(Ease of Doing Business) it is proposed that such scanning , preservation, creation of meta data of registered documents for past 10 years be done. As of now the department doing this work for just two years (Sep-2015 and Aug-2017) through NICSI, rest 8 years (Sep-2007 to Aug-2015) this job is to be done:

Settlement Commissioner & Nodal Officer, DILRMP has issued sanction of Rs. 22.11 Cr for scanning & indexing of old legacy document and it is proposed that the executing agency for this work be RISL.

Job	No. of Docs	No. of Pages	Approx. Rate per Doc. (in Rs)	Approx. Amount
Scanning & meta data creation of old documents of 8 years	1.14 Cr	11.40 Cr	22.31	25.43 Cr

For Connectivity:

ePanjiyan application software is a web-enabled application and all information and data are stored on the Servers installed on State Data Centre, maintained by DoIT&C. The users both from the SROs and public at large get access to this application through internet. The SROs are therefore, required to have a stable high speed internet connectivity available in their offices both to use the ePanjiyan software and also connect to the Land Record Database for various purposes.

There is a common network infra R-SWAN in the State and SROs are using/ will use this network infra. The provision @3.50 lacs per SROs has been there for connecting SROs with Revenue offices.

Job	Number of SROs	Rate @ SROs	Total Amount
Connectivity between SROs and Revenue Offices	529	3.50 Lacs	18.51 Cr.

It has been planned to have high speed connectivity available in all SROs, so that time slot based registration system could be implemented in totality, which will ensure that the entire registration process is completed within the given time slot to the users. Seamless connectivity highly essential for the information flow between ePanjiyan application and eDharti (Land Records) application software like getting land owner information, land holding, khasra/ khata details, purchaser details, registration information et al, which are needed for auto mutation system planned to integrate both systems. In order to start such facility a suitable bandwidth is to be made available at each SROs along with network monitoring tool be used for regular monitoring of network & bandwidth by the IGRS. Additionally, all network equipment provided for this network in SROs shall also be maintained by the respective agency.

Based on these facts, SoEE (Statement of Estimated Expenditure) has been received from RISL and the sanction has been issued by the Settlement Commissioner & Nodal Officer, DILRMP of Rs. 18.14 Cr under this component and executing agency for this work shall be RISL and necessary funds shall be given to RISL as per agreed terms & conditions of agreement / MoU.

Summarized Jobs, Fund Sanctioned and proposed executing agencies is as under:-

(Rs. in Cores)

S.No.	Particular	Amount Sanctioned by Settlement	Proposed Executing agency	Proposed Amount
1.	Computerization of Registration Hardware & other IT allied equipment's	11.63	RISL/ NICSI	10.20
2.	ePanjiyan Application Software maintenance and enhancement	3.00	NIC/ NICSI	3.00
3.	Scanning & preservation of old documents and data entry of legacy encumbrance	22.11	RISL	22.11
4.	Connectivity between SROs and Revenue Offices	18.14	RISL/ DoIT&C	18.14
				53.45

Fund Management:
The expenditure would be met from the funds available with Registration and stamp department.

Observations of Dept. of IT&C for Scanning & preservation process:

- Registration and Stamp department may decide the service provider/procurement agency for the task of following at their own level keeping in view the RTPP Act and GF&AR Rules

  o Scanning & preservation of old documents
  o Procurement of Hardware for Sub-registrar offices

  If any, technical assistance is required by Registration & Stamps Dept., same can be provided by Dept. of IT&C/ RISL.

- Registration and Stamp department shall develop Standard Operating procedures (SOP) for the whole process of scanning and preservation.

- Registration and Stamp department shall also ensure the security of these sensitive documents from theft/lost/destroyed/torn/mishandling during the scanning process. Provision of deployment of videography/CCTV at scanning site by Registration & Stamps Dept. is suggested

Keeping in view the importance of work, technical approval has already been accorded for Connectivity between SROs and Revenue Offices part of the project (having estimated cost of the same as Rs. 1814.00 lakh) by Principal Secretary, IT&C as being the chairman of SeMT.

The Committee accords technical approval of the project with estimated project cost of Rs. 5345.00 Lakh (inclusive of ex-post-facto technical approval of "Connectivity between SROs and Revenue Offices" having estimated cost of Rs. 1854.00 Lakh) along with the observation of DoIT&C.

10. Project :   Establishment of Smart classrooms at Madarsas by Dept. Of Minority Affairs & Waqf Board

The Committee was briefed about the proposal as Government of Rajasthan planned to set up a state of art Smart Classroom at 500 Madarsa's across the Rajasthan to improve the quality of teaching.

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Solution Deployed:

Brief of the smart classroom solution deployed/ to be deployed at a Madarsa is as given below:-

1. Computer System with Wi-Fi Router
2. Projector - Long Throw, XGA Resolution, Minimum 3200 ANSI Lumens, HDMI Input
3. Audio - 2.0 speaker with Internal Amplifier & 30W RMS audio output
4. Power Backup (UPS) - 1 KVA Line Interactive UPS
5. Interactive Features - Interactive Device & Stylus Pen
6. Whiteboard - 7 x 4 Feet Ceramic Steel Mate Finished Surface Whiteboard
7. Cabinet: Key Operated Wall Mount Metal Cabinet Vertical type to keep CPU, UPS, Keyboard, Mouse and other small accessories

Project was decided to be implemented in two phases with 1st phase consisting of 260 classrooms to be established in the year 2019-20 and **remaining 240 classrooms to be established in the next financial year 2020-21.** Smart Classrooms in Rajasthan Madarsa's Board identified for Phase-1 have already been established by RISL and are fully functional.

Financial Implication:

Per Class Estimates

S. No.	Item Name	Unit Price (in Rs.) per Equipment
1	**Computer System with Wi-Fi Router**	60,000
2	**Projector** - Long Throw, XGA Resolution, Minimum 3200 ANSI Lumens, HDMI Input	45,000
3	**Audio** - 2.0 speaker with Internal Amplifier & 30W RMS audio output	5,000
4	**Power Backup (UPS)** - 1 KVA Line Interactive UPS	5,000
5	**Interactive Features** - Interactive Device & Stylus Pen	20,000
6	**Whiteboard** - 7 x 4 Feet Ceramic Steel Mate Finished Surface Whiteboard	10,000
7	**Cabinet:** Key Operated Wall Mount Metal Cabinet Vertical type to keep CPU, UPS, Keyboard, Mouse and other small accessories	10,000
	Total Per Classroom	**1,55,000**

Total Cost for 500 Classrooms is as below:-

S.No.	Item Name	Amount (in Rs.)
1	Total Cost for 500 classroom (@Rs. 1,55,000 per classroom)	77500000.00
2	Contingency (@2%)	1550000.00
3	Total (1+2)	79050000.00
4	RISL Charges as per rules on item no 3	5943000.00
5	GST on RISL charges	1069740.00
6	Total including RISL charges & GST	86062740.00
	Say Rs.	**860.63 Lakh**

Fund Management:

Expenditure would be met from the fund available with Rajasthan Madarsa Board.

The Committee accords post facto approval of the project for the total cost of Rs. 860.63 Lakh for establishing 500 smart classrooms.

11. Project : **Video Surveillance System including installation for all (about 892) Police Stations of Rajasthan**

The Committee was briefed about the project proposal and intension of Police Department to implement integrated "Video Surveillance System including installation for all (about 892) Police Stations of Rajasthan". It has been envisaged that over next Two (02) years, post the approval of funds of Rs. 1680.00 Lakh, Video Surveillance System will be implemented in every Police Station of the Rajasthan, which would bring more transparency, increase organizational efficiency of Police Department.

Project requirements have been classified into the following main components-

Surveillance Equipment

The project includes surveillance of about **892 Police Stations** across Rajasthan with monitoring setup at SP office as SP Control Room (SPRC). These locations would get covered through different types of surveillance cameras including Fixed Dome Camera and IR Bullet Cameras.

UPS requirement at the SPRC is mandatory and the Service Provider should ensure that proper protection is taken against power surges and ensure power stabilization to the surveillance equipment. The Service Provider would need to follow required earthing standards (e.g. IS-3043) and ensure that the edge level components are protected against lightning. In addition, Junction box design should be modular and each component should be well organized and clamped inside to ensure components do not heat up or fall out on opening.

Network

Robust, reliable and scalable network shall be deployed to enable converged communication. The points of connection include Cameras at Police Stations, SPCR, and PHQCR. The connectivity between these locations is to be provided by Govt. of Rajasthan. The existing Police IT network shall be leveraged for the connectivity/ bandwidth requirement.

Application Portfolio

Applications deployed at the SPCR & PHQCR would act as the brain of the system. Keeping in view the needs of interoperability and integration, especially the possibility that the solution would become the focal point for maintaining law and order situation in the Police stations, the solution should be built on Open Standards. The key components of the Application Portfolio are (i) Video Management System (VMS) (ii) Edge based Video Analytics (iii) Video Recording System, and (iv) Customized Dash-board. The VMS shall allow access of the video feeds on Mobile Devices such as Smartphones, Tablets (android & iOS) and select devices on request.

It is prudent to hire an agency with expertise in the domain of Video Surveillance System with an established dealer/ service centres in the State along with the following deliverables:

Activities	Deliverables
Implementation of Integrated Video Surveillance System in all Police Station of Rajasthan	• Technical Specification Document • Feasibility Report • Preliminary Project Report (PPR) • Detailed Project Report (DPR) • Project Implementation Plan (High level) • Project Management and Installation Monitoring • Monthly Progress Report

Resource Deployment:

Multiple teams need to be deployed, ideally at District/ City Level so as to complete the implementation of Integrated Video Surveillance System in every Police Station and SP Office

Control Room across the State of Rajasthan. Details of the required resource is as mentioned below:

Resource Category	Experience and Qualification	No. of Resources
Project Manager Management Profile	10 Years' Experience with BE/ MCA/ MBA Graduation with Certification	1
Operation Manager Technical Profile	7 Years' Experience with Graduation or ITI	2
Installation Engineers Technical Profile	2 Years' Experience preferably with ITI	66

PROPOSED DESIGN CONSIDERATIONS:

Camera based Surveillance

Designing a video surveillance system involves decisions and/or clarity on the following factors-

Based on the various options which exist for each parameter, the following recommendations are proposed for implementation of Police Station Surveillance project in Rajasthan-

Camera Type, Location and Placement and Storage

(1) Type of cameras

A. Fixed IR Dome Cameras

Dome cameras are either ceiling mounted or suspended from a wall, on a mounted bracket, depending on its application or the field of view required. The camera unit is mounted inside a transparent dome which can be tinted to obscure the camera position. These cameras are fixed at an angle and focus. Housings are available for weather or vandal resistance or for use in hazardous (explosion risk) environments. Dome cameras are also available in mini- and micro- versions for discrete deployments and are available in a range of housings to suit various architectural styles. The Dome cameras shall have SD card for internal storage.

Key Features of 4MP WDR Vandal-resistant Network IR Fixed Dome Camera
- 1/3", progressive scan, CMOS
  Up to 2592×1520 resolution, 20 fps
  Triple Stream
  Lens- 3.6 mm
- Smart IR, up to 30m IR distance
- 2-Way Audio
- True WDR; 2D/3D DNR, ROI, 9:16 corridor mode
- Edge Analytics- Behavious Analytics, Face Detection, People Counting
- Ultra 265, H.265, ONVIF
- DC12V, PoE. Wide voltage range of ±25%
- IP67, IK10

B. Fixed Infra-Red (IR) Bullet Cameras

Infrared Bullet Cameras, are used for indoor or outdoor video surveillance. IR Bullet Cameras has simple fixed lens models as well as high end varifocal cameras with sense-up, WDR, and on-screen display controls. These cameras are fixed at an angle and focus.

Key Features of 4MP Network Mini Bullet Camera
- 1/3" progressive scan, CMOS

- Up to 2592x1520 resolution,20fps
- Lens- 4.0mm
- Smart IR, up to 50m IR distance
- True WDR
- 2-Way Audio
- Edge Analytics- Behavious Analytics, Face Detection, People Counting
- Ultra 265, H.265, Corridor Mode,2D/3D DNR, ROI, ONVIF
- DC12V, PoE; Wide voltage range of ±25%
- IP67, IK-10

C. Storage

Surveillance video is almost always archived for later retrieval and review. The average storage duration is suggested to be 30-45 days. The two most important drivers for determining storage duration is the cost of storage and the security threats an organization faces.

Thus, understanding what options and measures are available will be important while selecting NVRs and designing IP video system. Following recommendations are made by Police Dept. for Storage calculation/ optimization.

Storage Calculations (H.265+Compression)							
S. No.	Resolution	FPS	Storage (per day)	No. of Cameras	No. of days	Storage (in GB)	Storage in TB
1	720p	25	6	6	30	1296	1.4
2	1080p	12	6	6	30	1296	1.4

D. Camera Intelligence

The cameras installed at the police stations shall have the features of Motion Detection, Camera Tampering, Behaviour Analytics, and People counting/ Face Detection.

The Motion Detection feature shall facilitate raising of alarms during odd hours at some locations as defined during implementation. The camera feeds can also be programmed to be recorded on sensing detection of motion in the camera viewing range.

The Camera Tampering feature shall provide alerts to the Command Centre in case an attempt is made to tamper the cameras.

E. View Feeds

The provision of viewing of the camera feeds shall be made available as mentioned below-

- An array of 12 screens in 4X3 matrix for viewing video feeds from Police Stations at PHQCR
- Workstation viewing
- Remote PC/ Workstation viewing at Viewing Centre (at Sr. Official offices)
- Mobile Device viewing

(2) Requirement to establish the network

Each police station will be connected through network backbone with SPCR & PHQCR.

Bandwidth requirement at Police Station, SP Office & PHQ is detailed below under Bandwidth Calculation section:

S. No.	Resolution	FPS	Primary Bandwidth (Kbps)	Secondary Bandwidth (Kbps)	Bandwidth at Police Station (Kbps)	No. of Camera	Bandwidth at SP Office
1	720p	25	600	200	4800	6	54 Mbps
2	1080p	12	600	200	4800	6	54 Mbps

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A comprehensive net of cameras be installed across, including but not limited to:

S. No.	Suggested Location	Type of Camera	No. of Cameras
1	Main Entry/ Exit/ Parking/ outdoor area of Police Station	IR Bullet Camera	2
2	Malkhana/ Store	IR Bullet/ Dome Camera	1
3	Lock-up Area (Male/ Female)	IR Bullet Camera	2
4	Public Lounge/ Complaint Register Area	IR Bullet Camera/ Dome Camera	1
	Total		**6**

QUANTITY:
Indicative Quantity of the Material –
(A) Each Police Station wise

S.No.	Item Description	Qty.
1	Bullet / Dome Camera	6
2	NVR (16 Channel with inbuilt16 Port PoE)	1
3	32" Monitor	1
4	HDD (1 x 2 TB)	1
5	6U Rack	1
6	Cat6 Cable Roll (305m)	1
7	Conduit Supply (305m)	1
8	Misc. items	As per requirement
9	Installation Testing and Commissioning	1

(B) Each Police District wise:

S. No.	Item Description	Qty.
1	Embedded Video Server	1
2	17 U Rack (With accessories)	1
3	42" Monitor	2
4	HDD (1X6 TB)	1
5	Workstation	1
6	2 KVA online UPS with 1Hr backup	1

(C) At Police Head Quarter:

S. No.	Item Description	Qty.
1	Embedded Video Server	1
2	17 U Rack (With accessories)	1
3	42" Monitor	2
4	HDD (1X6 TB)	1
5	Workstation	1
6	2 KVA online UPS with 1Hr backup	1

FINANCIAL IMPLICATION (including total quantity):

CAPEX Cost for 5 years:

ICT Equipment and Accessories (including Installation)-

(Amount in Lakh)

S. No.	Description	Qty.		Estimated Rate	Estimated Cost of		Total Estimated Cost (Ph1+Ph2)
		Ph-1	Ph-2		Ph-1	Ph-2	
1	Police Station Infrastructure	446*	446	1.29	578.46	578.46	1156.92
2	PD Infrastructure	22	23	5.81	127.82	133.63	261.45
3	PHQ Infrastructure	01	0	5.81	5.81	0.00	5.81
				GST@ 18%	128.18	128.18	256.36
	Total				**840.27**	**840.27**	**1680.54**

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* The list of 446 Police stations selected in phase -1 is tentative and are prioritized according to reported incidents and could be changed by the concerned SP of the Police District within limit of no. of police stations allocated in the respective Police District.

OPEX (Recurring) Cost:
There shall be a recurring cost beyond 5 years for O&M which is estimated to be @10% of the project cost i.e. 16.80 Lakhs per year

FUND MANAGEMENT:
Expenditure would be met from the funds available with Police Dept.

Observations of Dept. of IT&C for the project:

1. Camera, Video quality and bandwidth requirement are interlinked and Police Department may decide the specifications based on the video quality required & available bandwidth at Police Station and District Offices.

2. System should have a minimum storage of two months at each police station for record purpose as per the camera specifications.

3. Police department shall ensure that the System shall be designed in such a way that the feeds of these CCTV cameras could be assessable at Abhay Command Control Centre and Control Room of SEOC.

4. Array of 4*3 displays at PHQ was mentioned but its cost was not considered in overall cost and department confirmed that this is not required currently in the project.

5. Sites of police station are quite remote and hence dedicated Man-power of System Integrator (SI) in field will be required to ensure the SLA of Camera's and NVR. It is suggested that payment terms should be made such that some portion of Capex to be paid quarterly based on service.

The Committee accords technical approval of the project for the total cost of Rs. 1680.54 Lakh along with the observations of Dept. of IT&C.

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12. Project :   Procurement of Computer h/w & allied items under e-Prisons Project for Jail Dept.

The Committee was briefed about the project proposal as Directorate General of Prisons, Rajasthan, Jaipur is in process to execute/ implement the e-Prisons project under supervision of a Committee of Ministry of Home Affairs (MoHA), GoI since 2017-18 for three (3) consecutive years.

A sum of Rs. 546.00 lakh was received as Grant from MoHA, GoI to GoR for this purpose. Out of which, a sum of Rs. 268.75 Lakh is available at present as savings for which Directorate intends to utilize this savings in "Procurement of Computer hardware and allied items for implementation of e-Prisons Project".

Procurement and Deployment Plan of computer hardware and allied items:

S. N.	Item	C.J. (10)	D.J. (26)	W.R.J. (7)	H.S.J. (1)	Sub J. (60)	OIC (38)	JHQ/ Range (4)	Total
1	Desktop	41	52	14	1	60	38	6	212
2	Laptop	2	0	5	0	0	0	5	12
3	Web Camera	20	26	14	1	60	38	6	165
4	Fingerprint Scanner (10)	10	0	0	0	0	0	2	12

S. N.	Item	C.J. (10)	D.J. (26)	W.R.J. (7)	H.S.J. (1)	Sub J. (60)	OIC (38)	JHQ/ Range (4)	Total
5	Fingerprint Scanner	0	26	7	1	0	38	0	72
6	UPS	31	52	14	1	60	38	6	202
7	MFP	31	52	14	1	0	38	6	142
8	Kiosk	1	0	0	0	0	0	0	1
9	Data Card (Dongle)	0	0	0	0	0	0	10	10
								Total	828

Technical specification are attached at Annexure-"E".

FINANCIAL IMPLICATION:

(Amount in Rs.)

S.No.	Name of Item	Qty. Req.	Unit Cost	Total Estimated Cost
1	Desktop System	212	60000	12720000
2	Laptop	12	69000	828000
3	Web Camera	165	10000	1650000
4	Finger Print Scanner	12	28000	336000
5	Finger Print Scanner	72	2000	144000
6	UPS	202	11000	2222000
7	Multi-Functional Printer (MFP)	142	20000	2840000
8	Kiosk	1	111000	111000
9	Data Card (Dongle)	10	1500	15000
			Total	20866000
10	New LAN Work, Repair Existing LAN Work & other works			6009352
			Grand Total	26875352
			Say Rs.	268.75 Lakh

FUND MANAGEMENT:

Expenditure would be met from the funds available with Directorate General of Prisons, Rajasthan.

The Committee accords technical approval of the project for the total cost of Rs. 268.75 Lakh

13. **Project :** **Revised proposal for procurement of computer hardware and allied items for Industries Dept.**

The Committee was briefed about the **revised project proposal** submitted by Industries Dept. for "Procurement of Hardware and Software".

Consolidated revised requirement of the proposal is as under:

(Rs. in Lakh)

S. No.	Items	Approved in 65th meeting of SeMT	Amount spent against 65th SeMT approval during F.Y. 2015-16 to 2018-19	Amount to be spent in F.Y. 2019-20	FMS/ ATS charges (next 4 F.Y)	Total (Col. 3+5+6)
1	2	3	4	5	6	7
1	Computer H/w (Desktop, printers, laptops, UPSs etc.)	203.25	0.00	56.00	0.00	259.25
2	Server H/w	75.59	75.59	0.00	0.00	75.59

S. No.	Items	Approved in 65th meeting of SeMT	Amount spent against 65th SeMT approval during F.Y. 2015-16 to 2018-19	Amount to be spent in F.Y. 2019-20	FMS/ ATS charges (next 4 F.Y)	Total (Col. 3+5+6)
3	S/w development for Ease of Doing Business (EoDB)	312.00	292.82	494.00*	448	1254.00
4	Misc. computerization related items: LED TV for VC studio, Wi-Fi networking and furniture.	17.00	7.20	10.00	0.00	27.00
5	Maintenance of computers and department micro website	31.67	64.29	10.00	40.00	81.67
	Total	639.51	599.64	570.00	488.00	1697.51
	Say Rs.	640.00	600.00	570.00	490.00	1700.00

* Rs. 348.00 lakh is provisioned for payment to RISL for FMS Charges, and Rs. 146.00 lakh is provisioned for development of new CSR Portal.

Deployment plan of the hardware is as under:

S.No.	Hardware	Qty. Required	Office Level (SHQ/ DHQ/ BHQ)	Usage
1	Desktop Computer (All-in-One)	52	SHQ- 36 DHQ-16	• Mechanism of MIFC (MSME Investment Facilitation Centers) is fully depend on computerization
2	Laptop (14")	50	SHQ-36 DHQ-14	• Departmental Online Applications Software
3	Laptop (12.2")			
4	Color Printer	5	SHQ-5	
5	Scanner	4	SHQ-4	• Net Surfing • MS Office (Word, Excel, PowerPoint processing)

Technical specifications are attached at Annexure-"F".

Fund Management:
Expenditure would be met from the funds available with Industries Dept.

The Committee is of the view that that Industries Dept. shall procure laptop 14.0 inches instead of laptop 12.2 inches.

The Committee accords technical approval of the revised project with total revised estimated cost of Rs. 1700.00 Lakh.

14. Project :   Implementation of Control Room for State Emergency Operation Centre (SEOC)

The Committee was briefed about the project proposal. The latest concept in disaster management is about conversion of Control Rooms in to Emergency Operation Centres. Emergency Operation Centre (EOC) responds immediately during an emergency situation and is equipped with State of the Art communication equipment which enables it to communicate quickly to the affected area and provide immediate support during the disaster.

State Government decided to look at the prospect of establishment of Emergency Control Room. SEOC is being set up on the first floor of the Library Building in Secretariat premises covering an area of approximately 5042 Sq. ft.

Objectives

The broad project objectives would include:

- Establish a state-of-the-art Control Room for State Emergency Operation Centre (SEOC) fully equipped with latest ICT infrastructure for advanced analysis and effective decision support in Disaster situations.
- Provide a robust platform which can be used by individual departments for providing disaster management services.

Scope of the Project:

IT Infrastructure at SEOC

It is proposed to implement through RISL; a state-of-the-art control room for State Emergency Operation Centre. The facility will enable organization and management of resources and responsibilities for dealing with different aspects of disaster (preparedness, response, and recovery). The IT would facilitate collection of feeds (data, audio, video etc.) from different government departments, agencies engaged in disaster management activities and would have the capacity to store, analyze and disseminate it. The control room would be equipped with workstations, video walls, networking equipment, power backup and would be manned by competent staff including Special Task Force and the operational staff.

Software to be developed for SEOC

To achieve the objective of SEOC following is proposed for implementation:-

Creation of an Early warning System & GIS based Decision Support System
- GIS based decision support system
- Advanced Analytics
- Early Warning System/ Integration with different command centers and their departmental application
- Software / Application for SEOC
- Core team of experts of scientific and technical experts working in metrology, geology, geophysics, environmental management, GIS and analytics for various domains as mentioned below:

Domains	Technical Provisions for Software/ Application development
Drought	Development of drought monitoring and early warning Systems • Unified Dashboard for effective disaster management • Integration with Abhay Command Centre for Surveillance and Monitoring • Drought Management System ○ Integration with Rajdharaa, Command Centre (Water SCADA System)/ GWD / Water Resources ○ Weather Management- Heat wave, Cold wave/ frost, Hail storm, Sand storm & Andhi and Integration with Weather Information System, IMD Database, Metrology Department ○ Integration with other GIS data sources like INSAT, Bhuvan • Integration with online Girdavari - Revenue Department
Flood	• Early warning system for floods &Flood management system- flash floods, cloud burst
Forest fires	• Forest Fire Monitoring System • Use of remote sensing technology for monitoring forest fires • Building capacity for remote sensing application for early warning of wild fires.
Epidemic	• Developing a platform (Epidemic Disease Management and Monitoring System) to share real time information amongst various departments and authorities during epidemics

Domains	Technical Provisions for Software/ Application development
Industrial risk management [Incidents Management - Mines Area, Major accidents (rail, road, air]	• Development of monitoring, and enforcement processes for hazardous waste generating units, mining, and petroleum industries.
Law & Order Management- Terrorism	• Development of IT enabled monitoring, and enforcement processes
Nuclear incidents Management system	• Development of monitoring, and enforcement processes, Surveillance and monitoring system
Chemical & Biological disaster management	• Development of monitoring, and enforcement processes, Surveillance and monitoring system
Advanced Analytics	Social Media, Historical data analysis, trend analysis, simulation model, hot spot mapping, location based analysis
Predication and early warning system/ Risk analysis & management- Environment, industrial, situation analysis	The main functions supported by the tools include the following: • Information collection and sharing • Decision support systems, through the integration of geo-spatial data • Communication & dissemination Emergency preparedness & response

Centre of Excellence for Analytics

A centre of excellence for Data Analytics which includes Scientists, SME, Meteorology and Disaster Experts shall be established.

GIS based Solution

Hardware related to GIS, Software / Application Development, Satellite Image procurement, FMS & Training & Capacity Building.

Implementation

For the purpose of implementation of control room for State Emergency Operation Centre, it is proposed to procure necessary IT hardware and get the site prepared for the Operation Centre. The necessary software / application may be developed and other associated activities may also be implemented.

Duration: Project period is for Go-Live plus 3 years of O&M Phase.

Budgetary Estimates & Project Plan for implementation of SEOC:

S. No.	Description of activity	Amount (in Crore)		
		CAPEX	OPEX	Total
1	IT Infrastructure* Professional LED (55 inch Panel), Display Controller (2x2), Workstations, Access Switch, 42U Rack, Internal CCTV Camera (Dome/Bullet), 16 Port NVR, IP Telephone, Network Printer, A3 Printer, LAN and Optical Fiber Cabling, Layer 3 Switch, Desktop, CCC Server, CCC Client Along with three years of O&M period	2.83	3.53	6.36
2	Cost of Civil Work (Interior Civil Work)	6.79	0.00	6.79
3	1. Unified Dashboard for effective disaster management 2. Integration with Abhay Command Centre for Surveillance and Monitoring 3. Drought Management System - Integration with Rajdharaa, Command	NIL	NIL	Already Setup Feed will be extended to SEOC

	Centre (Water SCADA System)/ GWD/Water Resources - Weather Management- Heat wave, Cold wave/ frost, Hail storm, Sand storm & Andhi and Integration with Weather Information System, IMD Database, Metrology Department - Integration with other GIS data sources like INSAT, Bhuvan 4. Integration with online Girdavari-Revenue Dept.			
4	6% Contingency Note:- Contingency cost is estimated @2% of overall cost in that expense head to meet out change requests and price escalation and any other item costing the implementation of project over a period of 3 years. Contingency charges are indicative only and it shall be based on actuals. Contingency cost shall be demanded by RISL only when activities under contingency expenses are decided to be executed by department.	0.58	0.21	0.79
5	Total Cost	10.20	3.74	13.94
6	RISL approved Service Charges Note:-Greater than 5 Crore- 6% of Total Cost			0.98
7	GST on RISL Service Charges (@18% on Sr. No. 10)			0.18
	Grand Total Cost in INR including RISL Service Charges & GST			15.10

Detail of the required IT-Infrastructure is as mentioned below:

S.No.	Item	Estimated Qty. (In Nos.)	Unit Cost (Incl. GST @ 28%)	Total Cost (Incl. GST @ 28%)
1	Table	18	213760	3847680
2	Professional LED (55 inch Panel)	16	143360	2293760
3	Display Controller (2x2)	4	143360	573440
4	Workstations	16	102400	1638400
5	Access Switch	3	106240	318720
6	42U Rack	1	203520	203520
7	Internal CCTV Camera (Dome/ Bullet)	14	13248	185472
8	16 Port NVR	1	53837	53837
9	IP Telephone	22	21760	478720
10	Network Printer	2	46195	92390
11	A3 Printer	1	146586	146586
12	LAN and Optical Fiber Cabling	1	14438	14438
13	Layer 3 Switch	2	403200	806400
14	Desktop	4	63660	253440
15	CCC Server	1	12800000	12800000
16	CCC Client	18	256000	4608000
	Total (Inclusive of all taxes and duties)			28314803
	Say Rs.			**2.83 Crores**

Fund Management:
Expenditure would be met from the fund available in Disaster Management Relief & Civil Defense Department (DMRD), GoR, Jaipur.

Observations of Dept. of IT&C are as mentioned below:

1. The proposal is based on the latest trend in disaster management of conversion of Control Room into Emergency Operation Center (EOC) and to equip them to respond during an emergency situation and it is planned to be provided with State of the Art communication equipment which enables it to communicate quickly to the affected area and provide immediate support during the disaster.

2. IT components in the project are less compared to other components and are found essential for the proposed SEOC.

The Committee accords technical approval of the project with total estimated cost of Rs. 1510.00 Lakh.

15. Project : Procurement of Computer Hardware and allied items for Transport Dept.

The Committee was briefed about the project proposal. After Go-live of SAP-ERP in Transport Department, it is necessary to equip all Tax Collection Centers (TCC) and Sub offices and 12 RTOs of Transport Department with latest version of IT hardware system. Therefore, a consolidated tentative requirement of IT hardware i.e. Desktop Computers, Mono Laser Printer, Touch Screen Kiosk, 5 KVA UPS along with technical specification having estimated cost Rs 255.25 Lakh for all TCCs and Sub offices and 12 RTOs offices of Transport Department have been worked out and proposal put up before PeMT.

Scope of Work (SoW) & Financial Implication:
The Departmental PeMT considered the proposed consolidated tentative requirement along with technical specification & estimated unit rate of the IT hardware and recommended the final quantity on the basis of field requirement in view of approved policy of IT hardware.

The tentative requirement and financial implication of IT hardware (inclusive of GST@18%) have been determined as under:

S.No.	Item Description	Qty. (Nos.)	Per Unit Rate	Total Amount
1	Desktop Computer	164	40000	6560000
2	Laser Jet Printer (Black)	118	10000	1180000
3	Uninterruptable power supply (5 KVA)	71	110000	7810000
4	Touch Screen Kiosk	35	110000	3850000
5	Signature Capture Pad	46	3500	161000
6	Web Camera	46	2500	115000
7	Air Conditioner	12	40000	480000
8	Network Infra (Rack, Switch, IO)	59	25000	1475000
	Total	551		**21631000**
	GST @18%			**3893580**
	Grand Total			**25524580**
	Say Rs.			**255.25 Lakh**

Technical specification are attached at Annexure-"G".

Fund Management:
Expenditure would be met from the funds available with Transport Dept.

Observations of Dept. of IT&C for the project:

1. Signature Capture Pad, Web Camera and Network Infra (Rack, Switch, I.O.) requirements are user need and location specific. Therefore, Transport Dept. may decide the specifications based on the usability and suitability of locations etc.

2. Air-Conditioner doesn't fall under the IT item category, Transport Dept. may decide for this item at its own level.

The Committee accords technical approval of the project with total estimated cost of Rs. 255.25 Lakh.

This has also been decided in the meeting that the Departments of State Government, who are procuring IT/ Computers hardware and allied items; may develop/possess an Asset management System to manage and monitor the procured IT/Computer hardware/Allied items/Software(s)/Licenses etc.

Meeting ended with a vote of thanks to the chair.
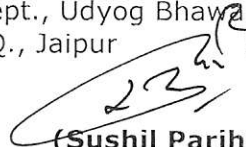
This bears the approval of competent level.

(B.S. Nathawat)
Tech. Director & Jt. Secretary, IT&C

Copy for information and necessary action to:
1. P.S. to Addl. Chief Secretary, Finance Department, Rajasthan, Jaipur
2. P.S. to Principal Secretary, Planning Department, Rajasthan, Jaipur
3. P.S. to Principal Secretary, Dept. of IT&C, Rajasthan, Jaipur
4. P.S. to Principal Secretary, Agriculture Dept., Rajasthan, Jaipur
5. P.S. to Secretary, Women & Child Development Dept., Raj., Jaipur
6. P.S. to Chairman, Rajasthan Real Estate Regulatory Authority (RERA), Jaipur
7. P.S. to Commissioner, Industries Dept., Udyog Bhawan, Jaipur
8. P.S. to Commissioner, Agriculture Dept., Rajasthan, Pant Krishi Bhawan, Jaipur
9. P.S. to Commissioner & Special Secretary, Dept. of IT&C, Rajasthan, Jaipur
10. P.S. to Director, Directorate Integrated Child Development Services (ICDS), Jaipur
11. P.S. to DIG, SCRB, PHQ, Jaipur
12. P.S. to ...., Directorate General, Prison (Karagaar), Rajasthan, Jaipur
13. P.S. to Registrar, Rajasthan Real Estate Regulatory Authority (RERA), Jaipur
14. A.P.S. to Director (Technical), RajCOMP Info Services Ltd. (RISL), Jaipur
15. P.S. to Director, Directorate of Agriculture Marketing, Pant Krishi Bhawan, Jaipur
16. P.A. to Joint Secretary (Expenditure-III), Finance Department, Raj., Jaipur
17. DDG & SIO, NIC, Rajasthan, Jaipur
18. Financial Advisor, Dept. of IT&C, Jaipur
19. Shri R.L. Solanki, Addl. Director, RISL, Jaipur
20. Shri Mukesh Meena, Additional Director, ICDS, Rajasthan, Jaipur.
21. Smt. Jyoti Luhadiya, S.A. (Joint Director), Dept. Of IT&C, Jaipur
22. Smt. Deepshikha Saxena, S.A. (Joint Director), S.C.R.B., P.H.Q., Jaipur
23. Ms. Sonia Chaturvedi, S.A. (Joint Director) & OIC (RTI), Dept. Of IT&C, Jaipur
24. Shri C.P. Singh, General Manager (Technical) & OIC (RajVC), RISL, Jaipur
25. Shri K.N. Sharma, Manager (Technical) & OIC (RTI), RISL, Jaipur
26. Shri Virendra Kumar Jain, Manager (Technical) & OIC (RTI), RISL, Jaipur
27. Shri Keshar Singh, Dy. Director, Directorate of Agriculture Marketing, Jaipur
28. Sh. Naveen Kumar, A.C.P. (Dy. Director), Dept. of IT&C, Jaipur
29. Sh. Ranveer Singh, A.C.P. (Dy. Director), Dept. of IT&C/ RISL, Jaipur
30. Ms. Monika Chaudhary, A.C.P. (Dy. Director), Dept. of IT&C, Jaipur
31. Shri Manoj Bansal, A.C.P. (Dy. Director), Industries Dept., Udyog Bhawan, Jaipur
32. Sh. Anil Sharma, A.C.P. (Dy. Director), S.C.R.B., P.H.Q., Jaipur
33. Director, LNMIIT, Jaipur
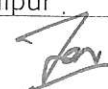34. Guard File

(Sushil Parihar)
Addl. Director (Gr.-XI)

सूचना प्रौद्योगिकी और संचार विभाग

79th Meeting of SeMT – List of Attendees

1	Shri Abhay Kumar	Principal Secretary, IT&C, Rajasthan, Jaipur
2	Shri Mahaveer Prasad	Inspector General, Registration & Stamps Dept., Ajmer
3	Shri Abhimanyu Kumar	Director (Technical), RajCOMP Info Service Ltd., Jaipur
4	Shri Sharat Kaviraj	DIG, SCRB, PHQ, Jaipur
5	Shri Sanwar Mal	Finance Advisor, Dept. of IT&C, Jaipur
6	Shri B.S. Nathawat	Tech. Director & Joint Secretary, Dept. of IT&C, Jaipur
7	Shri Tarun Toshniwal	DDG & SIO, NIC-Rajasthan, Jaipur
8	Shri Vinesh Singhvi	OSD (Plan), Planning Dept., Jaipur
9	Shri Achleshwar Meena	F.A., Directorate Agriculture Marketing, Jaipur
10	Shri R. Vardharajan	Additional Director, IGRS, Ajmer
11	Shri R.L. Solanki	Additional Director, RISL, Jaipur
12	Shri Sushil Parihar	Additional Director, Dept. of IT&C, Jaipur
13	Shri M.K. Meena	Additional Director, ICDS, Jaipur
14	Shri Rakesh Mohan	Superintendent, Central Jain, Jaipur
15	Smt. Jyoti Luhadiya	System Analyst (Joint Director), DoIT&C, Jaipur
16	Shri Rajesh Gupta	System Analyst (Joint Director), DoIT&C, Jaipur
17	Shri Sanjay Singhal	System Analyst (Joint Director), DoIT&C, Jaipur
18	Shri Sunil Bhatia	System Analyst (Joint Director), IGRS, Ajmer
19	Ms. Sonia Chaturvedi	System Analyst (Joint Director), Dept. of IT&C, Jaipur
20	Shri Rohitashwa Kr. Meena	System Analyst (Joint Director), Transport Dept., Jaipur
21	Shri Ram Gopal Sharma	Joint Director (I), Agriculture Department, Jaipur
22	Shri Ramesh Chandra Sharma	Registrar, RERA, Udyog Bhawan, Jaipur
23	Shri C.P. Singh	General Manager (T), RISL, Jaipur
24	Shri Keshar Singh	Dy. Director, Directorate Agriculture Marketing, Jaipur
25	Shri Rajeev Gujral	Sr. Project Officer, Dept. of IT&C, Jaipur
26	Shri Naveen Kumar	A.C.P. (Dy. Director), DoIT&C, Jaipur
27	Shri Ranveer Singh	A.C.P. (Dy. Director), DoIT&C, Jaipur
28	Smt. Monika Chaudhary	A.C.P. (Dy. Director), DoIT&C, Jaipur
29	Shri Manoj K. Maheshwari	A.C.P. (Dy. Director), ICDS, Jaipur
30	Shri O.P. Prajapat	A.C.P. (Dy. Director), Transport Department, Jaipur
31	Ms. Sudha Singh	A.C.P. (Dy. Director), Agriculture Department, Jaipur
32	Shri Manoj Bansal	A.C.P. (Dy. Director), Industries Dept., Raj., Jaipur
33	Shri Rajkumar Singh	A.C.P. (Dy. Director), Department of IT&C, Jaipur
34	Shri Anil Sharma	A.C.P. (Dy. Director), S.C.R.B., Jaipur
35	Shri Veerendra Kr. Jain	Manager (T), RISL, Jaipur
36	Shri K.N. Sharma	Manager (T), RISL, Jaipur
37	Shri Akhil Agarwal	A.O., Directorate of Agriculture Marketing, Raj., Jaipur
38	Shri Kailash Chandra Sethi	A.A.O., O/o the Commissioner, Industries, Raj., Jaipur
39	Shri Natwar Singh	Programmer, DoIT&C, Jaipur
40	Shri Vijay Kanungo	Assistant Manager (T), RISL, Jaipur
41	Shri Sanjay Sepat	Assistant Manager (T), RISL, Jaipur
42	Shri Nikhil Meena	Asst. Programmer, DoIT&C, Jaipur
43	Smt. Megha Sharma	Asst. Programmer, DoIT&C, Jaipur

Technical specification for Computer hardware procurement under e-NAM project [of Directorate of Agriculture Marketing]:

1. Desktop Computer:

Item	Minimum Technical Specifications
Processor	Intel i5/ AMD Ryzen-5 (9th Generation/equivalent AMD) 6 core, with minimum 2.9 GHZ or higher (Base Frequency), 9 MB Cache or higher
Chipset	Compatible Intel/AMD chipset
Operating System	Windows 10 Professional 64 bit preloaded with OEM recovery partition/Recovery DVD
Graphics	Integrated/Discrete Graphic card
Memory	8GB DDR4 2666MHz or higher
Storage	1 TB 7200 RPM SATA Drive
Ports	Minimum 6 USB ports out of which Min 2 USB 3.0 OR higher, 1-Display Port/ HDMI, audio jack for headphone & mic
Display	Minimum 19.0" inch or higher HD plus (Resolution 1600x900) or higher Display, TCO Certified
Warranty	3 years comprehensive on site OEM warranty from date of installation
Antivirus	Preloaded (Latest version) Internet Security of Trend Micro/ Symantec/ Sophos/ Kaspersky with 3 years Subscription
Certification	ROHS Compliance, BEE/ Energy Star certified, EPEAT Registered in India
Keyboard & Mouse	OEM USB Keyboard & OEM USB Mouse with pad
Network interface	Integrated 10/100/1000
Office	Open office updated version (freeware)
Accessories	All necessary cables (Power & data cables) to be included

2. UPS:

Item	Minimum Technical Specifications
UPS Capacity	1 KVA
Warranty	3 years comprehensive on site OEM warranty from date of installation excluding Battery
Protection	Full protection
Certifications	BIS certification for the quoted model
User Display	Display for input & output voltage and battery charging
Voltage	230V +- 10%
Range	160V-280V
Power factor	0.6 or higher
Back up time	Minimum 30 Minutes with Minimum 9 AH or higher 12 V battery (SMF) time to meet backup time
Test report	OEM should submit test report for the quoted model issued by state/central laboratory (not old from last 5 years)

3. Laptop:

Item	Minimum Technical Specifications
Processor	Intel® Core™ i7 8th Generation quad core, with minimum 1.6 GHz or higher(Base Frequency), cache 6 MB or higher
Operating System	Pre-installed Genuine OEM Microsoft Windows 10 Professional (64-bit) with OEM recovery partition /recovery DVD
Display Type	14" or higher diagonal +/-5% HD Display
Memory	8GB DDR4 2400MHz or higher
Hard Drive	1 TB SATA drive
Warranty	3 years comprehensive on site OEM warranty from date of installation
Speaker	Inbuilt speakers

Connection Type	Minimum 2 USB 3.0 or higher, 1 USB Type C, 1 VGA/ HDMI, Headphone/microphone combo/separate, 1 multi-format SD media card reader
Antivirus	Preloaded (Latest version) Internet Security of Trend Micro/Symantec/Sophos/Kaspersky with 5 years Subscription
Network card	Integrated 10/100/1000 GB Ethernet LAN with 3 Mtr. CAT6 Patch Cord
Wireless Connectivity	Bluetooth 4.0 or above & integrated Wi-Fi 802.11 b/g/n
Graphics	Integrated HD Graphics
Web Cam	HD Web Camera(front facing), integrated digital microphone
Battery	Minimum 4 Hrs. Battery Backup (three years warranty)
Power Adapter	Standard power adapter
Keyboard	OEM standard keyboard
Office	Open Office updated version (freeware)
Certification	ROHS Compliance, Energy Star, certified for supplied OS, EPEAT Registered in India
Accessories	Carry Bag

4. Tablet :

Item	Minimum Technical Specifications
Platform	1.5 GHz or higher Octa Core Processor, Android v9.0 (Pie) or latest
Memory	2GB DDR3 or better
Connectivity	Cellular (with 2G, 3G, 4G support), Wifi (802.11 or better), Bluetooth v 4.0, USB/ Micro USB
Features	Voice calling, Location Technology–GPS/AGPS/(GLONASS & Geo Tagging)
Storage	Min 32 GB
Display Size	Minimum 8 inch with capacitive Multi touch with IPS/ TFT Display
Camera	Rear - 8 MP & Front - 5 MP
Memory Card Slot	One
Warranty	Standard warranty
Sim Slot	Single or more SIM Slot
Resolution	Minimum 1280 x 800
Internet Security	Internet Security S/w for Android OS to be included (Kaspersky/ Sophos/ MacAfee/ Intel/ Norton/ Quick Heal/ Trend Micro)
Battery	4000 mAh or better
OEM	OEM Should be in • Top 3 IDC ranking for India shipments in Tablets in Q2 2019 OR • Top 5 IDC ranking for Worldwide Shipments in Tablet in Q2 2019

5. Hand Held POS Terminal :

Requirements	Minimum Technical Specifications
Form Factor	Device should be a Hand Held Terminal
Processor	Min. Quad core Processor
CPU Speed	Minimum 1.0 GHz
Memory	1 GB or higher RAM with 8 GB (Flash / ROM)or higher memory
Operating System	Android 6.0 or higher
Expansion Slot	Micro SD Slot to support SD card minimum 8 GB
Communication	Terminal shall support GSM networks with 4G (incl. 2G & 3G

Requirements	Minimum Technical Specifications
	support) and Wi-Fi
Interface	Min. 1 USB Type C/ 1 Micro USB/ USB 2.0 slot
Display	5.5 inches or better, LCD with backlit, color TFT, minimum HD (1280 x 720) resolution, High-Bright capable of reading even in bright sunlight, Capacitive Touch screen
Keypad	QWERTY Keypad/ Soft Keypad
Battery	Swappable and Dry/ Rechargeable Min 4000 mAh or higher, Li-ionor Li-ionor Li-Polymer capable for providing min. 6 hours operation while all function of device are active
Charger	• Power adaptor with surge protection and operating range of 100V to 240V, 50 Hz. AC input. • One extra charger is to be provided
Slots	Min. 2 GSM SIM slot
Audio Port	In built speaker (support WAV and MP3 files)
Finger Print Scanner	STQC CERTIFIED FINGERPINT SENSOR and OEM should comply with UID guidelines of biometric machines (RD 2.5) including managing APIs and backend for biometric scanner
Status indications	Indicators for connectivity (presence/ absence), signal strength, battery status, etc.
Cabinet	Aesthetically designed ABS & Poly Carbonate/ acrylic/ other tough material integrated in rugged casing, with integrated Printer, LCD display, inbuilt finger print scanner and Keyboard
Carry Case	Durable Carry case to house the Handheld Terminal with manual
Management	Device should be remotely manageable in secured mode
Additional Feature	Device to install the application for ICDS
Language Support	Bilingual support (Hindi and English) to be extended to Keyboard
Security	256-bit AES and SHA-256 for full compliance with Aadhaar Authentication API specifications (9)
Certification	• As per STQC guidelines • IP 51 certified • BIS • CE, FCC, RoHS Marking
Bilingual Support	Device must support both English and Hindi Languages in the application running on the device
GPS	GPS Inbuilt
Camera	Inbuilt
Warranty	Three years

6. **Projector with Stand Accessories:**

Item	Minimum Technical Specifications
Resolution	WXGA (1280 x 800)
Portable white display screen with stand accessories	Min 119 inch diagonal movable wall mounted white screen
Technology	LCD
Lumens	Min 3000 ANSI
Resolution: Min	WXGA (1280 x 800)
Aspect ratio	16:9/ 16:10
Contrast ratio	3000:1
Input	VGA x 1, HDMI x1, Component Video: D-sub 15pin x1
Output	D-sub 15pin (Black molding) x 1(Output signal : Computer 1 only)

Audio input:	Stereo mini jack x 1
Audio Output:	Stereo mini jack x 1
Communication terminal :	D-sub 9pin x 1 / RS-232C
Lamp Hours	Min 4000 hours
Projection method	Front/rear
Accessories	To be supplied for basic installation
Warrenty	3 years comprehensive on site OEM warranty from date of installation

7. **Display LED:**

Item	Minimum Technical Specifications
Display	55" LED smart commercial LED with wall mount kit
Resolution	1080p Full HD
Certification	BIS, FCC, UL
USB Ports	USB-2
Others	IP5X rating , Wi-Fi and Bluetooth
Warranty	3 years (minimum)
Inputs	DVI-D-1, HDMI-2, Stereo mini jack
Brightness	350 nit or more
Operation	16/7 hr
Native contrast ratio	(4000:1)
Speakers	Inbuilt standard
Viewing angle	178 : 178
Power requirement	AC 100- 240 V, 50/60 Hz
VESA mount	Yes
Energy rating	7.0

8. **Multipurpose Laser Printer (Printer, Scanner & Photocopier):**

Item	Minimum Technical Specifications
Printing method	Monochrome laser
Print technology	Laser (Black)
Print Speed	25 ppm or higher
Print Resolution	600 x 600 dpi or higher
Memory	256 MB or Higher
Connectivity	On USB, Ethernet
Duty Cycle (Monthly)	10000 pages or higher
Auto Duplex Print	YES
Functions	Print, copy, scan
Scan type/ technology	Flatbed with ADF
Scan file format	PDF, JPEG, TiFF, BMP etc.
Media size supported	A4, A5, Legal
Scan speed	15 ppm or higher
Scan resolution	600 x 600 dpi or higher
Copy resolution	600 x 600 dpi or higher
Toner/Cartridge	Laser Black toner cartridge pre-installed
Energy Star	Yes
Compatible operating systems	Windows 7, 8, 10 (32 bit/64 bit , Linux - Mac OS
Cables/ Accessories	All the required cables, accessories.
Software media	Driver & utility software CD/DVD
BIS Registration	Yes
Warranty	3 years comprehensive on-site OEM warranty from date of installation

9. Laser Jet Printer specification

Item	Minimum Technical Specifications
Print Technology	Monochrome laser
Print speed	18 ppm or more
Print quality black	Up to 600 x 600 dpi
Duty cycle (monthly, A4)	8000 pages or higher
Port	1 USB
Duplex Printing	Yes
Print Language	Host based Printing
Voltage Rating	220 to 240V AC(+/- 10%), 50 Hz (+/- 2 Hz)
Compatible operating systems	Windows 7, 8, 10 (32 bit/64 bit), Linux, Mac OS.
Software media	Driver & utility software CD/DVD
Warranty	3 years comprehensive on-site OEM warranty from date of installation

Technical specification for Supply of Hand-Held Terminals (POS Devices):

Requirements	Minimum Technical Specifications
Form Factor	Device should be a Hand Held Terminal
Processor	Min. Quad core Processor
CPU Speed	Minimum 1.0 GHz
Memory	1 GB or higher RAM with 8 GB (Flash / ROM)or higher memory
Operating System	Android 6.0 or higher
Expansion Slot	Micro SD Slot to support SD card minimum 8 GB
Communication	Terminal shall support GSM networks with 4G (incl. 2G & 3G support) and Wi-Fi
Interface	Min. 1 USB Type C/ 1 Micro USB/ USB 2.0 slot
Display	5.5 inches or better, LCD with backlit, color TFT,minimum HD (1280 x 720) resolution, High-Bright capable of reading even in bright sunlight, Capacitive Touch screen
Keypad	QWERTY Keypad/ Soft Keypad
Battery	Swappable and Dry/ Rechargeable Min 4000 mAh or higher, Li-ionor Li-ionor Li-Polymer capable for providing min. 6 hours operation while all function of device are active
Charger	• Power adaptor with surge protection and operating range of 100V to 240V, 50 Hz. AC input. • One extra charger is to be provided
Slots	Min. 2 GSM SIM slot
Audio Port	In built speaker (support WAV and MP3 files)
Finger Print Scanner	STQC CERTIFIED FINGERPINT SENSOR and OEM should comply with UID guidelines of biometric machines (RD 2.5) including managing APIs and backend for biometric scanner
Status indications	Indicators for connectivity (presence/ absence), signal strength, battery status, etc.
Cabinet	Aesthetically designed ABS & Poly Carbonate/ acrylic/ other tough material integrated in rugged casing, with integrated Printer, LCD display, inbuilt finger print scanner and Keyboard
Carry Case	Durable Carry case to house the Handheld Terminal with manual
Management	Device should be remotely manageable in secured mode
Additional Feature	Device to install the application for ICDS
Language Support	Bilingual support (Hindi and English) to be extended to Keyboard
Security	256-bit AES and SHA-256 for full compliance with Aadhaar Authentication API specifications (9)
Certification	• As per STQC guidelines • IP 51 certified • BIS • CE, FCC, RoHS Marking
Bilingual Support	Device must support both English and Hindi Languages in the application running on the device
GPS	GPS Inbuilt
Camera	Inbuilt
Warranty	Three years

Note: Department mentioned for integrated thermal printer and payment add-ons on PoS devices, however the current functional requirement can be met with above specifications. Department can however based on their requirement may take decision at their level on thermal printer and payment add-ons.

Technical specification for Cryptographic USB Tokens

(i) General:

S.No.	Minimum Tech. Specifications
1.	Support for 32 and 64 bits machines
2.	Min. 64K memory for storing multiple digital signature Certificates
3.	On board Crypto Algorithm for support of RSA up to 2048 bits, DES, 3DES, AES and CAVP
4.	Hashing Algorithm support for SHA-1, SHA-256, SHA-384, SHA-512
5.	Middleware Support for PKCS#11 v2.01, v2.11, PKCS#15, X.509 v3 certificate storage
6.	FIPS 140-2 Level 2/3 Security Certification
7.	Common Criteria CC EAL4+/EAL5+
8.	True Random Number Generator(TRNG)as per NIST SP 800
9.	OS should be either from open source or must support standard platforms like Java 3.0/Higher or .NET
10.	Compliance to PC/SC and CCID protocol
11.	No method to extract, view and access the private key
12.	Hard tamper-proof body as one unit
13.	A unique Serial Number should be pre-printed/engraved on it
14.	Memory data retention should be at least 10 years
15.	At least 5,00,000 memory cell rewrites
16.	All executables related to crypto operation should be on ROM only
17.	Single unit Packaging containing Crypto USB Token, middleware/driver mini CD and dog tag should be provided.
18.	SDK and API should be made available with User Guide
19	Must meet the security Requirements for Crypto Token as per CCA guidelines

(ii) Administrative Utility:

S.No.	Minimum Tech. Specifications
1	Token Logging on/off as (admin and ordinary user)
2	PIN/Password Change
3	Token Initialization from Admin user
4	Deletion, Insertion of keys and certificates
5	Import of P12/PFX file
6	Export of Certificate
7	PIN Unblocking from Admin user
8	Storage of Root/ Chain Certificates
9	Viewing Public keys and Certificate
10	Copy Certificate from Token to system Certificate store and vice- versa
11	Delete Certificate from System certificate store when the token is removed
12	Blocking card functioning after some number of wrong PIN attempts (configurable)
13	PIN and Token Timeout parameter setting
14	The Bidder should certify that they have support mechanism in India, either directly through their support office in India or through their authorized channel partners/dealers in India.

(iii) Windows/MAC Environment:

S.No.	Minimum Tech. Specifications
1.	Windows 2003Server/2008Server/Vista/Windows7/Windows8/Windows10/ Windows Home Edition /MAC OS(x) 10.x with upgradeability with future versions (For new OS, support should be made available within six months of its release in the market)
2.	Auto installable CD for driver and utility (plug and play)
3.	Support for Microsoft and JAVA Crypto API
4.	Support to PKI enabled products available in windows environment e.g. SSLv3-client authentication, IE browser, Netscape Browser, Mozilla, CROME, Microsoft Outlook Express, MS Word, Adobe Writer etc.
5.	Devices should work smoothly (signing, verification, encryption and decryption) with NIC PKI enabled projects e.g. web based NICE Mail, e-district, e-office, e-tender, e-procurement etc.
6.	Reference implementation (source code) in support of generating and verifying digital signature in windows using Microsoft and JAVA Crypto Environment

(iv) Linux Environment:

S.No.	Minimum Tech. Specifications
1.	RHEL 4.0/5.0/6.0 for Workstation, ES, AS, Novel Suse 10 with upgradeability to future versions

Technical specifications for required computer hardware and allied items [for Directorate General, Prison (Karagaar), Rajasthan, Jaipur]:

1. Desktop Computer:

Item	Minimum Technical Specifications
Processor	Intel i5/ AMD Ryzen-5 (9th Generation/equivalent AMD) 6 core, with minimum 2.9 GHZ or higher (Base Frequency), 9 MB Cache or higher
Chipset	Compatible Intel/AMD chipset
Operating System	Windows 10 Professional 64 bit preloaded with OEM recovery partition/Recovery DVD
Graphics	Integrated/Discrete Graphic card
Memory	8GB DDR4 2666MHz or higher
Storage	1 TB 7200 RPM SATA Drive
Ports	Minimum 6 USB ports out of which Min 2 USB 3.0 OR higher, 1-Display Port/ HDMI, audio jack for headphone & mic
Display	Minimum 19.0" inch or higher HD plus (Resolution 1600x900) or higher Display, TCO Certified
Warranty	3 years comprehensive on site OEM warranty from date of installation
Antivirus	Preloaded (Latest version) Internet Security of Trend Micro/ Symantec/ Sophos/ Kaspersky with 3 years Subscription
Certification	ROHS Compliance, BEE/ Energy Star certified, EPEAT Registered in India
Keyboard & Mouse	OEM USB Keyboard & OEM USB Mouse with pad
Network interface	Integrated 10/100/1000
Office	Open office updated version (freeware)
Accessories	All necessary cables (Power & data cables) to be included

2. Multipurpose Laser Printer (Printer, Scanner & Photocopier):

Item	Minimum Tech. Specifications
Printing method	Monochrome laser
Print technology	Laser (Black)
Print Speed	25 ppm or higher
Print Resolution	600 x 600 dpi or higher
Memory	256 MB or Higher
Connectivity	On USB, Ethernet
Duty Cycle (Monthly)	10000 pages or higher
Auto Duplex Print	YES
Functions	Print, copy, scan
Scan type/ technology	Flatbed with ADF
Scan file format	PDF, JPEG, TiFF, BMP etc.
Media size supported	A4, A5, Legal
Processor Speed	400 MHz or higher
Scan speed	15 ppm or higher
Scan resolution	600 x 600 dpi or higher
Copy resolution	600 x 600 dpi or higher
Toner/Cartridge	Laser Black toner cartridge pre-installed
Energy Star	Yes
Compatible operating systems	Windows 7, 8, 10 (32 bit/64 bit , Linux, Mac OS
Cables/ Accessories	All the required cables, accessories.
Software media	Driver & utility software CD/DVD
BIS Registration	Yes
Warranty	3 years comprehensive on-site OEM warranty from date of installation

3. 2KVA Interactive UPS:

Item	Minimum Tech. Specifications
UPS Technology	Line Interactive

Item	Minimum Tech. Specifications
Rating VA	2000 VA
Output Watts	1200 or higher
Input Voltage Range	145V - 295V
Input Frequency	50Hz+- 5
Output Volts	190V – 250V
Output Volts Regulation	230V+-10%
Output Frequency	50Hz+-1Hz
Recharge Time	8 Hrs for 90% charging
Front Display	LCD
Indicator	Mains ON/On Battery/Low Battery/Fault/Overload
Alarm	On Battery mode/ Fault condition, Over load, Low Battery
Restart	Auto Restart Facility
Cold Start	DC Cold Start Facility should be available in UPS
Protection Features	During Mains Input AC Supply Low/ High, Battery mode Input Low/ High; Short Circuit Trip – Under mains/ Battery mode; Over load Trip under Mains/ Battery mode
Plug Type	In
Output Type	4 Nos. Indian plug
Input Protection	Input Fuse
Operating Humidity	0-95% without condensation
Operating Temperature	0-40 deg C
Product Certification	BIS Certificate
OEM Certification	ISO 9001/ ISO14001 & OHSAS
Battery Backup	300, VAH or higher
Warranty	2 Year on Battery, 5 Year UPS

4. Laptop:

Item	Minimum Tech. Specifications
Processor	Intel® Core™ i7 9th Generation quad core, with minimum 1.6 GHz or higher(Base Frequency), cache 6 MB or higher
Operating System	Pre-installed Genuine OEM Microsoft Windows 10 Professional (64-bit) with OEM recovery partition /recovery DVD
Display Type	14" or higher diagonal +/-5% HD Display
Memory	8GB DDR4 2400MHz or higher
Hard Drive	1 TB SATA drive
Warranty	3 years comprehensive on site OEM warranty from date of installation
Speaker	Inbuilt speakers
Connection Type	Minimum 2 USB 3.0 or higher, 1 USB Type C, 1 VGA/ HDMI, Headphone/ microphone combo/ separate, 1 multi-format SD media card reader
Antivirus	Preloaded (Latest version) Internet Security of Trend Micro/Symantec/Sophos/Kaspersky with 5 years Subscription
Network card	Integrated 10/100/1000 GB Ethernet LAN with 3 Mtr. CAT6 Patch Cord
Wireless Connectivity	Bluetooth 4.0 or above & integrated Wi-Fi 802.11 b/g/n
Graphics	Integrated HD Graphics
Web Cam	HD Web Camera(front facing), integrated digital microphone
Battery	Minimum 4 Hrs. Battery Backup (three years warranty)
Power Adapter	Standard power adapter
Keyboard	OEM standard keyboard
Office	Open Office updated version (freeware)
Certification	ROHS Compliance, Energy Star, certified for supplied OS, EPEAT Registered in India
Accessories	Carry Bag

5. Kiosk:

Item	Minimum Tech. Specifications
Type/ Mounting	Pedestal
Construction base	The enclosure shall be of minimum 1.6 mm thick CRCA Steel, polymer powder coated designated to work in harsh conditions. The design shall be vandal resistant. Design must be sleek and attractive
Display Type:	Display with anti-toughened glass (As per UL – Tested by Ball Drop Test: By dropping steel ball of 50mm dia of 0.5kg weight from a height

सूचना प्रौद्योगिकी और संचार विभाग

Item	Minimum Tech. Specifications
	of 1.3 Mtr on the display and there shall not be any damage to screen)
(a) Type	Color LED HD wide Screen Backlit LED Anti-Glare Display
(b) Size	SAW Touch Screen with 19"
(c) Resolution	1280 x 800 or higher
(d) LCD Touch Panel	SAW Type with 3mm or higher anti-glare & overlay tempered vandal resistant glass.
System Details:	
Processor	Intel Core i5 (9th Generation) 2.9 GHz, 6 MB Cache, 6 Cores
Memory (RAM)	16 GB, DDR-4
Optical Device Drive	DVD RW
HDD/ Storage	1 TB 7200 RPM SATA Drive
Expansion Slot (PCI)	0
Expansion Slot (PCIex1)	1
Expansion Slot (PCIex16)	1
Operating System	win 10 Professional 64 bit with DPK
Input Device	Metal keyboard with track ball
Cabinet	Small Form Factor
Other Ports	VGA, HDMI
USB Ports	2 X USB 2.0, 2 X USB 3.0
Power Supply	Optimum Wattage SMPS to support full use of system
Cooling	Two no. of fans to be provided inside the chassis
UPS	Inbuilt UPS 1 KVA with 30 minutes backup
Biometric Finger Print Reader	Standardization Testing and Quality Certification (STQC) Certified Aadhaar Biometric Scanner
Warranty	On site Comprehensive support and warranty for 5 years

6. Web Camera:

Item	Minimum Tech. Specifications
Device Type	Web Camera
Connectivity Technology	Wired
Resolution	Max Digital Video Resolution 1920X1080
Zoom	Digital Zoom 3X
Features	Full HD Movie Recording, 720p HD movie Recording, ClearFrome Technology, TrueColor Technology
Image Sensor	CMOS
Lens Construction	Min Focus Range 3.9 in
OS	All OS Supported
Video Input	Colour
Audio	Build in microphone
Image Capture Resolution	2560 X 2048
Interfaces	USB 2.0 and Above Connector, 4 Pin USB Connector
Cable Details	USB Cable min 6 ft.
Warranty	5 Years

7. Biometric Finger Print:

Item	Minimum Tech. Specifications
Type	Fingerprint Scanner Device for use with Desktop, Laptop, Tablet, POS Device etc.
Certification Device and Extractor Software/ SDK	SQTC Certified
API/ SDK	Windows 7 and above (Including windows based Mobile Phone)
Connectivity	Integrated USB 2.0 and above connector
Sensor Module	Optical Fingerprint Sensor OEM Module – STQC Certified single finger sensor module

Annexure-"F"

Technical specifications for required computer hardware and allied items [for Industries Dept. Jaipur]:

(a)   Desktop Computer (All-in-One):

Item	Minimum Technical Specifications
Operating System	Windows 10 Professional 64 bit preloaded with OEM recovery partition/ Recovery DVD
Processor	Intel i5 (9th Generation) 6 core, with minimum 2.9 GHz or higher (Base Frequency), 6 MB Cache or higher
Chipset	Compatible chipset
Memory	8GB DDR4 2666MHz or higher
Hard drive description	1 TB 7200 RPM SATA Drive
Optical drive	DVD-RW Writer
Monitor	Minimum 21.0" inch or higher Full HD display, TCO Certified
Graphics	Integrated HD Graphics
PCI Slot	Not to include in the specification as they are standard
Bays	Not to include in the specification as they are standard
I/O Ports	Minimum 6 USB ports out of which Min 2 USB 3.0 OR higher, 1 type C, 1 Display Port/HDMI, integrated HD webcam, Universal audio jack for headphone/ mic
Keyboard	OEM USB Keyboard
Mouse	OEM USB Mouse with pad
Network interface	Integrated 10/100/1000
Wireless connectivity	Integrated 802.11 b/g/n, Integrated Bluetooth 4.0
Power supply	Adequate power supply
Office	Open office updated version (freeware)
Antivirus	Preloaded (Latest version) Internet Security of Trend Micro/ Symantec/Sophos/ Kaspersky with 5 years Subscription
Certification	ROHS Compliance, BEE / Energy Star certified, EPEAT Registered
Accessories	All necessary cables (Power & data cables) to be included
Warranty	5 yrs. comprehensive on site OEM warranty from date of installation

(b)   Laptop:

Item	Minimum Technical Specifications
Processor	Intel® Core™ i7 9th Generation quad core, with minimum 1.6 GHz or higher(Base Frequency), cache 6 MB or higher
Operating System	Pre-installed Genuine OEM Microsoft Windows 10 Professional (64-bit) with OEM recovery partition /recovery DVD
Display Type	14" or higher diagonal +/-5% HD Display
Memory	8GB DDR4 2400MHz or higher
Hard Drive	1 TB SATA drive
Warranty	3 years comprehensive on site OEM warranty from date of installation
Speaker	Inbuilt speakers
Connection Type	Minimum 2 USB 3.0 or higher, 1 USB Type C, 1 VGA/ HDMI, Headphone/ microphone combo/ separate, 1 multi-format SD media card reader
Antivirus	Preloaded (Latest version) Internet Security of Trend Micro/Symantec/Sophos/Kaspersky with 5 years Subscription
Network card	Integrated 10/100/1000 GB Ethernet LAN with 3 Mtr. CAT6 Patch Cord
Wireless Connectivity	Bluetooth 4.0 or above & integrated Wi-Fi 802.11 b/g/n
Graphics	Integrated HD Graphics
Web Cam	HD Web Camera(front facing), integrated digital microphone
Battery	Minimum 4 Hrs. Battery Backup (three years warranty)
Power Adapter	Standard power adapter
Keyboard	OEM standard keyboard
Office	Open Office updated version (freeware)
Certification	ROHS Compliance, Energy Star, certified for supplied OS, EPEAT Registered in India

Accessories	Carry Bag

(c) colour Printer:

Item	Minimum Technical Specifications
Type	Laser Printer
Color Print Speed, A4	4 PPM
Black print speed, A4	27 PPM
Input Tray	250 sheets
Output tray	150 sheets
Duty Cycle	50,000
Ports	USB 2.0 port, Network, Wireless
Processor	1000 MHz or higher
Memory	256 MB or higher
Print Quality	600*600 DPI
Auto Duplex	Yes
Certification	Energy Star

(d) Scanner:

Item	Minimum Technical Specifications
Type	Flatbed, ADF
Bit Depth	24-bits external 48-bits internal
Scan Resolution	Up to 600 dpi
Scan speed	20 ppm at 300 dpi
ADF Capacity	50 pages
Processor	100 MHz or higher
Memory	64 MB
Ports	USB
Certification	Energy Star

Technical specifications for required computer hardware and allied items [for Transport Dept. Jaipur]:

1. Desktop Computer Specification

Item	Technical Specifications
Processor	Intel i5/ AMD Ryzen-5 (9th Generation/equivalent AMD) 6 core, with minimum 2.9 GHZ or higher (Base Frequency), 9 MB Cache or higher
Chipset	Compatible Intel/AMD chipset
Operating System	Windows 10 Professional 64 bit preloaded with OEM recovery partition/Recovery DVD
Graphics	Integrated/Discrete Graphic card
Memory	8GB DDR4 2666MHz or higher
Storage	1 TB 7200 RPM SATA Drive
Ports	Minimum 6 USB ports out of which Min 2 USB 3.0 OR higher, 1-Display Port/ HDMI, audio jack for headphone & mic
Display	Minimum 19.0" inch or higher HD plus (Resolution 1600x900) or higher Display, TCO Certified
Warranty	3 years comprehensive on site OEM warranty from date of installation
Antivirus	Preloaded (Latest version) Internet Security of Trend Micro/ Symantec/ Sophos/ Kaspersky with 3 years Subscription
Certification	ROHS Compliance, BEE/ Energy Star certified, EPEAT Registered in India
Keyboard & Mouse	OEM USB Keyboard & OEM USB Mouse with pad
Network interface	Integrated 10/100/1000
Office	Open office updated version (freeware)
Accessories	All necessary cables (Power & data cables) to be included

2. Mono Laser Printer Specification

Item	Technical Specification
Printer Type	Laser
Print Speed	20 ppm or higher
Print Resolution	600*600 dpi
Input tray	200 or higher
Memory	Min 64 MB
Connectivity	USB, Ethernet
Duplex	Auto
Certification	Energy Star

3. Touch Screen Kiosk specification

Item	Technical Specification
Type/ Mounting	Pedestal
Construction base	The enclosure shall be of minimum 1.6 mm thick CRCA Steel, polymer powder coated designated to work in harsh conditions. The design shall be vandal resistant. Design must be sleek and attractive
Display Type:	Display with anti-toughened glass (As per UL – Tested by Ball Drop Test: By dropping steel ball of 50mm dia of 0.5kg weight from a height of 1.3 Mtr on the display and there shall not be any damage to screen)
(a) Type	Color LED HD wide Screen Backlit LED Anti-Glare Display
(b) Size	SAW Touch Screen with 19"
(c) Resolution	1280 x 800 or higher

Item	Technical Specification
(d) LCD Touch Panel	SAW Type with 3mm or higher anti-glare & overlay tempered vandal resistant glass.
System Details:	
Processor	Intel i5/ AMD Ryzen-5 (9th Generation/equivalent AMD) 6 core, with minimum 2.9 GHZ or higher (Base Frequency), 9 MB Cache or higher
Memory (RAM)	16 GB, DDR-4
Optical Device Drive	DVD RW
HDD/ Storage	1 TB 7200 RPM SATA Drive
Expansion Slot (PCI)	0
Expansion Slot (PCIex1)	1
Expansion Slot (PCIex16)	1
Operating System	win 10 Professional 64 bit with DPK
Input Device	Metal keyboard with track ball
Cabinet	Small Form Factor
Other Ports	VGA, HDMI
USB Ports	2 X USB 2.0, 2 X USB 3.0
Power Supply	Optimum Wattage SMPS to support full use of system
Cooling	Two no. of fans to be provided inside the chassis
UPS	Inbuilt UPS 1 KVA with 30 minutes backup
Biometric Finger Print Reader	Standardization Testing and Quality Certification (STQC) Certified Aadhaar Biometric Scanner
Warranty	On site Comprehensive support and warranty for 5 years

4. Five (5) KVA UPS specification

Type	Item	Technical Specification
Generic	Rating in KVA (KVA)	5.0 KVA
	Technology	IGBT-PWM with inbuilt isolation transformer
	Input Power	single phase 160V - 260V sinewave,50Hz
	Output power	Single phase 230V +/-5% sinewave 50 Hz
	Backup time (Minutes)	30
	Minimum VAH (VAH)	4000
	Warranty for UPS (Years)	3
	Movable trolley for Batteries	Without trolley but with rack
	Warranty for battery	2
	Degree of Protection	IP20
	Cabling 5 meters for input and out put	With
	Paralleling kit for Synchronizing	Without
	Installation and Commissioning	Yes
Constructional	Type of Battery	SMF-VRLA
Functional	Maximum overshoot and Under shoot of output rated voltage	4
	Overall Efficiency (%)	>/=90%
	Total Harmonic Distortion (THD) (%) for 100% leaner load	Maximum 3%
Protection	Protection for under voltage at battery terminal at 10.5V per 12 V battery.	Yes
	Protection of Over voltage, Short Circuit & over load at UPS output terminal	Yes
Metering &	Digital Metering in UPS for AC Input	Yes

Type	Item	Technical Specification
Indications	Voltage, Output AC Voltage, Current, Frequency, Battery Voltage and Current	
	Indicators for mains presence, Battery charging and discharging, Output Over Load, Low Battery Voltage	Yes
Reports & Certification	Damp Heat : in accordance with IS:9000(part 5/sec.2)1981 at Temperature of 40 degree C, two cycles of (12+12) hours each 2007)	Yes
	Dry Heat Test: in accordance with IS: 9000 (part 3/sec.5)1977 (reaffirmed 2007) at 55 degree C for 16 hrs.	Yes
	Cold Test: in accordance with IS: 9000 (Part 2/Sec.4)1977 (Reaffirmed 2007) at -10 degree C for 4 hrs.	Yes
	Availability of the Type Test Report from Central Govt. /NABL/ILAC Accredited lab covering all technical requirements.	Yes

----#### End of MoM ####----