RFP for Selection of System Integrator for Development of Integrated IT Infrastructure (HMIS, PACS, QMS, Network Infrastructure) for Hospitals & Health Centres under Surat Municipal Corporation (SMC)

Surat Municipal Corporation

RFP No.: SSCDL-eHealth-RFP-02-2022

Last date (deadline) for Online Price Bid Submission: 04/07/2022

Last date (deadline) for Technical Bid Submission: 11/07/2022

Invited by

Surat Smart City Development Limited

1st Floor, South Zone Office, Surat Municipal Corporation,
Opp. Satyanagar, Udhna, Surat-394210, Gujarat, India.

Disclaimer

This RFP is being issued by the Surat Smart City Development Limited (hereunder called "Authority"/ "SSCDL") for inviting tenders to shortlist qualified system integrator with proven track record of e-health (Integrated IT Infrastructure including HMIS, PACS, QMS, Network Infrastructure, Server & Storage Hardware, Computer Hardware & System Software) implementation and post implementation support.

It is hereby clarified that this RFP is not an agreement and is not an offer or invitation by Authority to any party hereunder. The purpose of this RFP is to provide the Bidder(s) with information to assist in the formulation of their proposal submission. This RFP document does not purport to contain all the information Bidders may require. This RFP document may not be appropriate for all persons, and it is not possible for Authority to consider particular needs of each Bidder. Each Bidder should conduct its own investigation and analysis, and should check the accuracy, reliability, and completeness of information in this RFP document and obtain independent advice from appropriate sources. Authority and their advisors make no representation or warranty and shall incur no liability Financial or otherwise under any law, statute, rules, or regulations or otherwise as to the accuracy, reliability, or completeness of the RFP document.

The parties to whom this invitation is extended are not mandated under any agreement, made here, to bid. Responding to this invitation will be their sole commercial decision. Such decision will entail risks, responsibilities and rewards as described in this RFP. It is deemed that a party /institution choosing to respond by way of a bid, in general, is accepting them.

Authority may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information in this RFP document.

The Authority reserves the right not to proceed with the selection process at any stage or to change the process or procedure to be applied in a fair and transparent manner. It also reserves the right to decline to discuss the process further with any party submitting a proposal/Bid. No reimbursement of cost of any type shall be paid to persons, entities submitting a bid/proposal.

SSCDL shall not be responsible for any costs or expenses incurred by the Bidders in connection with the preparation and delivery of bids, including costs and expenses related to visits to the sites. SSCDL reserves the rights to cancel, terminate, change or modify this procurement process and/or requirements of bidding stated in the RFP, without assigning any reason or providing any notice and without accepting any liability for the same. The Bidders would be selected based on the criteria mentioned in this RFP. Only the Price Proposal of Qualified Bidders as per RFP terms would be opened. The date of opening of Price Proposal will be communicated to qualified bidders later.

Notice Inviting Request for Proposal

Surat Smart City Development Limited (SSCDL)

1st Floor, South Zone Office, Surat Municipal Corporation, Opp. Satyanagar, Udhna, Surat-394210, Gujarat, India.

Notice Inviting RFP for Selection of System Integrator for Development of Integrated IT Infrastructure (HMIS, PACS, QMS, Network Infrastructure) for Hospital & Health Centres under Surat Municipal Corporation (SMC) [RFP No.: SSCDL-eHealth-RFP-02-2022]

This RFP Document is being published by Surat Smart City Development Ltd. (SSCDL) for Development of Integrated IT Infrastructure (HMIS, PACS, QMS, Network Infrastructure) for Hospital & Health Centres under Surat Municipal Corporation (SMC) at Surat, Gujarat. SSCDL hereby invites Proposals for selection of the system integrator.

Bid Fee (Non-refundable)	• Rs. 21,240/- by Demand Draft or Banker's Cheque
EMD	• EMD of Rs. 25,00,000 (Rupees Twenty-Five Lakhs only) in the form of Demand Draft / Banker's Cheque in favour of "Surat Smart City Development Limited"
Last date to submit the Pre-Bid Queries	• By email to it@suratsmartcity.com on or before 27.06.2022, 16:00 hrs.
Online Price Bid End Date	• To be submitted online only on https://smc.nprocure.com on or before 04.07.2022 up to 18:00 hrs.
Technical Bid Submission (in Hard Copy) along with EMD & Bid fee	• In sealed envelope strictly by RPAD/Postal Speed Post on or before 11.07.2022 up to 18:00 hrs. to the Chief Accounts, Surat Municipal Corporation, Muglisara, Surat – 395003
RFP Document Availability	• https://smc.nprocure.com http://suratsmartcity.com/Tenders

The right to accept/reject any or all bid(s) received is reserved without assigning any reason thereof.

General Manager (IT)
Surat Smart City Development Ltd

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1. Definitions

In this RFP, the following word (s), unless repugnant to the context or meaning thereof, shall have the meaning(s) assigned to them herein below:

1. **"SSCDL" or "Authority"** means the Surat Smart City Development Limited and shall include its authorized successors and assigns at all times.

2. **"SMC"** means Surat Municipal Corporation.

3. **"HSCC"** means HSCC India Limited which is the project management consultant appointed by SMC for e-Health Surat project.

4. **"Bid/Proposal"** means the proposal submitted by the Bidder(s) in response to this RFP in accordance with the provisions hereof including Technical Proposal and Price Proposal along with all other documents forming part and in support thereof as specified in this RFP.

5. **"Bidder"** means System Integrator along with its consortium partner (if any) responding to the RFP.

6. "**Earnest Money Deposit (EMD)"** means Security furnished by the Bidder.

7. **"Bid Process**" means the process of selection of the Successful Bidder through competitive bidding and includes submission of Proposals, scrutiny and evaluation of such Bids as set forth in the RFP.

8. **"Consortium"** shall mean the group of legally constituted entities, who have come together to participate in captioned project and have agreed to terms and Conditions of Consortium Agreement as specified in this RFP for design, development, integration, implementation, operation, maintenance, and management of Implementation and post implementation support of e-Health System, subject to the terms of this RFP.

9. **"Completion Certificate/GO Live Certificate"** means the certificate issued by the Authority upon successful installation and demonstration of all functionalities as specified in RFP.

10. **"Deadline for Submission of Bids/ Proposal" or "Proposal Due Date/Bid Due Date"** shall mean the last date and time for receipt of Bids as set forth in 'Invitation for Proposal' of this RFP or such other date / time as may be decided by SSCDL in its sole discretion and notified by dissemination of requisite information.

11. **"Implementation and post implementation support of e-Health System" or "Project"** refers to the design, development, integration, implementation, operation, maintenance, and management of Implementation and post implementation support of e-Health System as per the scope defined in the RFP.

12. **"Agreement"** means the legal agreement including, without limitation, any and all Appendix thereto, which will be entered into between SSCDL and the Successful Bidder for design, development, integration, implementation, operation, maintenance, and management of Implementation and post implementation support of e-Health Project. The terms of this RFP, along with any subsequent amendments at any stage, shall become part of this Agreement.

13. "**Selected Bidder"** shall mean the Bidder who has emerged as preferred bidder in terms of this RFP and has been issued the Work Order/Letter of Acceptance (LoA) by SSCDL and awarded the work under this RFP.

14. **"Lead Member"** means the consortium member company nominated by all member companies in case of a Consortium participating in and submitting the Bid who shall be responsible for execution of the project and to furnish the Earnest Money Deposit and the Performance Guarantee/ Security Deposit in case of award of the Contract Agreement.

15. **"Letter of Acceptance" or "LOA**" means the letter issued by SSCDL to the Successful Bidder to undertake and execute the project in conformity with the terms and conditions (T&C) set forth in the RFP and any subsequent amendments thereof.

16. **"Performance Guarantee" or "Security Deposit"** shall mean the Bank Guarantee furnished by a successful Bidder for punctual and due performance of its duties as per terms and conditions of this RFP.

17. **"RFP" or "Tender"** shall mean this RFP document which comprises of the following sections: Disclaimer, Scope of Work, Instructions to Bidders, Proposal Evaluation, Draft License Agreement, Service Level Agreement, Forms of Bid which include any applicable Appendix thereto.

18. **Technical Proposal Evaluation Criteria** shall have a meaning specified in clause 6.2 of this RFP.

19. **Key Personnel** means the members assigned to this project who will implement the project and form the core team. Certain experienced, professional members who are essential for successful accomplishment of the work to be performed under this contract. The resumes of these personnel will be submitted for evaluation of the proposal and such personnel shall not be removed from the contract work or replaced without compliance.

20. **Transactional Users** are defined as an individual authorized to use the applicable licensed application programs which are installed on a single server or on multiple servers to perform roles related to operations, system administration/management supported by the licensed Software.

21. **Corrupt practice** means (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of any person connected with the Selection Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of the Purchaser who is or has been associated in any manner, directly or indirectly with the Selection Process or the LOI or has dealt with matters concerning the Agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the Purchaser, shall be deemed to constitute influencing the actions of a person connected with the Selection Process); or (ii) save as provided herein, engaging in any manner whatsoever, whether during the Selection Process or after the issue of the LOA/work order or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOA or the Agreement, who at any time has been or is a legal, financial or technical consultant/ adviser of the Purchaser in relation to any matter concerning the Project;

22. **Fraudulent practice** means a misrepresentation or omission of facts or disclosure of incomplete facts, in order to influence the Selection Process or process after the issue of the LOA/work order or after the execution of the Agreement, as the case may be.

23. **Coercive practice** means impairing or harming or threatening to impair or harm, directly or indirectly, any persons or property to influence any person's participation or action in the Selection Processor process after the issue of the LOA/work order or after the execution of the Agreement, as the case may be.

24. **Undesirable practice** means (i) establishing contact with any person connected with or employed or engaged by Purchaser with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Selection Process or process after the issue of the LOA/work order or after the execution of the Agreement, as the case may be; or (ii) having a Conflict of Interest.

25. **Restrictive practice** means forming a cartel or arriving at any understanding or arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the Selection Process.

Any other term(s) not defined herein above but defined elsewhere in this RFP shall have the meaning(s) ascribed to such term(s) therein and shall be deemed to have been included in this section.

2. Introduction and Background

Surat Municipal Corporation (SMC) has an objective to turn the hospitals and health centres under its jurisdiction into more efficient and less paper based health care organizations operating digitally to the maximum extent possible and at the same time being able to generate actionable insights from the medical records already captured or will be captured post digitization with a single aim of serving its citizens in a more transparent and efficient manner with optimum utilization of its resources.

The purpose of the e-Health Surat project is to establish an integrated IT Infrastructure which will connect the data/information at all the SMC hospitals & health centres centrally & will provide the structured & useful data to SMC to arrive at any decision quickly and prepare the policies for the benefit of the citizens/patients. The e-Health project will provide efficient health care delivery, facilitate management in better decision making, create unique health record of all the patients, less paper hospitals & health centres, reduce patient's time & improve quality of service, eliminate the manual & repeated data entry and automate the procedures & methodologies.

In order to provide the best of services to the citizens, SMC wants to attract the best of talent from leading organizations who have rich experience in running similar initiatives. The implementation plans hence would be tendered and the bidder meeting the RFP criteria and having offered the lowest cost would be awarded the contract. It would be SMC's discretion to award the contract to the selected bidder. The overall solution will be implemented as per the timeline defined in this RFP, followed by application maintenance support (AMS) accounting to total project duration of five (5) years post completion of Hypercare Support.

The project being awarded to the deserving party would be on a design-build-maintain-transfer model for a period of five (5) years post Hypercare. SMC reserves the right to extend the operation period beyond contract period on mutual agreement with the SI. The parties who respond to the tender are expected to (but not limited to) manage the entire program end-to-end including Implementation and customization of product(s), develop custom module as required, maintenance and support following ITIL practices, setup and follow IT service delivery processes.

2.1. ABOUT SURAT

Located in western part of India in the state of Gujarat, Surat is referred as the silk city and the diamond city. It has the most vibrant present and an equally varied heritage of the past. Surat is also known as economic capital of Gujarat and is having one of the highest growth rates amongst Asian cities. As per the Census 2011, it is the eighth largest city in the country with population of 4.48 million. On the scale of population growth, Surat is the fastest growing city in Asia and holds 4thrank in the world. On the economic front, Surat holds topmost position with highest per house-hold income in the country. Surat City has consistently maintained high GDP growth rate of 12 to 13% and high per capita income.

The economic base of Surat consists of large chemical and petrochemical and natural gas-based industries at Hazira established by leading industry houses such as ONGC, Reliance, ESSAR, and Shell. Surat is the biggest centre of MMF (man-made fiber) in India. The overall annual turnover is around 5 billion rupees (approximately USD 82 million). There are over 800 cloth wholesalers in Surat. Surat produces 9 million meters of fabric annually, which accounts for 60% of the total polyester cloth production in India. Textile and apparel industries offer major employment in this region. Surat region is a hub of diamond cutting and polishing industries. The city accounts for 90% of world and 99.9% of India's total rough diamond cutting and polishing. It also accounts for 90% of India's total diamond export.

Surat has practically zero percent unemployment rate and jobs are easier to get here due to very fast development of various industries in and around Surat City. Surat continues to be a favorite place for job seekers as people from all around the country flock in for business and jobs

Surat has also been selected as one of twenty Indian cities (in the first round of selection) to be developed as a smart city under Smart Cities Mission.

2.2. ABOUT SURAT MUNICIPAL CORPORATION

Surat Municipal Corporation is a local self-government, which has come into being under the Bombay Provincial Municipal Act, 1949. It carries out all the obligatory functions and discretionary functions entrusted by the BPMC Act, 1949. It became one of the first municipalities of India in 1852 AD, and a municipal corporation in 1966.

The Surat Municipal Corporation (SMC) has responded to the challenges of fastest population growth and high-speed economic development by adopting the best urban management practices. The administration of SMC with the help of the people and elected members of the city has transformed Surat to one of the cleanest cities of India. SMC has taken all necessary steps to make the city a better place to live with all amenities. SMC has taken up many path breaking initiatives and these efforts have been acknowledged at national and international level.

Utilization of Information Technology (e-Governance)

SMC had harnessed the power of IT before it became ubiquitous and a necessity for organizations of its nature and size. SMC is one of the few local self-government to adopt computerization in its early phases and use it for better governance, improving operational efficiency and increasing ease of interaction with citizens. SMC has initiated various e-Governance and m-Governance projects. The same have been recognized at national/international level. Following is the list of awards received in recent past:

1. 'City Award' to Surat Smart City for showing best momentum in implementation of projects under 'India Smart Cities Award' 2020 by MoHUA in June 2021
2. 'Project Award' for "Maximum Mobility with Minimum Resources through Dynamic Scheduling" under "Urban Mobility" category by MoHUA in 'India Smart Cities Awards 2019' in June 2021
3. 'City Award' to Surat Smart City for showing best momentum in implementation of projects under 'India Smart Cities Award' 2019 by MoHUA in January 2020
4. 'Project Award' to Surat Smart City's 'One City One Card - Digitalization for cashless travel by integration of Automatic Fare Collection System with Surat Money Card' under 'Mobility & Transportation' Category by MoHUA in 'India Smart Cities Awards 2019' in January, 2020
5. 'Smart Project Award' to Surat Smart City's 'Automatic Fare Collection System (AFCS)' under 'Smart Transportation' Category by Smart Cities Council India in September 2019
6. 'Digital India Award' for 'Open Data Initiative' under 'Open Data Champion' Category by Ministry of Electronics and Information Technology, Govt. of India in February, 2019
7. 'City Award' to Surat Smart City for showing best momentum in implementation of projects under 'India Smart Cities Award' 2018 by MoHUA in July 2018
8. 'Project Award' to Surat Smart City's Integrated Transit Management System (ITMS) under 'Transport and Mobility' Category of 'India Smart Cities Award' 2018 by MoHUA in July 2018
9. 'Smart Project Awards' for SMAC Centre and ITMS projects by Smart City Council of India, March 23, 2018
10. SKOCH 'Order-of-Merit' Award for Surat Smart City's Project Management System, 2018
11. Digital Leader of the Year Award, 2017
12. National e-Governance Award, 2017
13. Business World Smart Cities Award 2016–Dec, '16
14. Digital India Award 2016 (Platinum Icon)–Dec, '16

15. IT Innovation & Excellence 2016 Award–Oct, '16
16. Express IT Award 2015 (Bronze) For SMC Mobile App
17. Vodafone – Mobile for Good Award 2014 to Citizen's Connect – SMC Mobile App
18. Skoch Order-of-Merit to Citizen's Connect – SMC Mobile App
19. mBillionth Award South Asia 2014 to Citizen's Connect – SMC Mobile App
20. HUDCO Award for Best Practices to Improve the Living Environment 2013-14 for Mobile App & Virtual Civic Center (Online Services)
21. Skoch Gold Award & Order-of-Merit for Use of e-Governance for Improved Service Delivery
22. The Janaagraha G2C Award 2012 for Best website under the category "Transparency and Accountability"
23. City Civic Centre won the National Award for e-Governance 2007-08 (Bronze) for Outstanding Performance in Citizen Centric Service Delivery
24. Golden Jubilee Memorial Trust Awards 2007-08 for Outstanding Utilisation of Communication & Information Technology from Southern Gujarat Chamber of Commerce
25. The Grievance Redressal System awarded the Best Practice Award by CMAG & FIRE[D]
26. Certificate of Merit by NIUA – FIRE(D) for the best website in the year 2001

2.3. ABOUT SURAT SMART CITY DEVELOPMENT LIMITED (SSCDL)

As per the Government of India's guidelines, Surat Municipal Corporation has formed a separate Special Purpose Vehicle (SPV) as Surat Smart City Development Ltd. (SSCDL) for the implementation of projects under the smart city mission for the city of Surat. This SPV shall carry end to end responsibility for vendor selection, implementation, and operationalization of various smart city projects.

2.4. PROJECT OBJECTIVE

With the view to eliminate the traditional, manual and repeated data entries in the hospitals and health centres and to automate the healthcare processes SMC has planned to implement an Integrated IT Infrastructure including HMIS, PACS, QMS and Network Infrastructure for hospitals and health centres under SMC in order to digitalize them to the maximum extent possible.

2.5. AS-IS SITUATION

Surat Municipal Corporation being an early adopter of digitization amongst all municipal corporations as early as 1979 have been managing its IT applications efficiently. Most of the services of Surat Municipal Corporation are digitized and there are different applications serving different functions of the departments. The applications are developed and managed by Information System Department (ISD) with a manpower-based team.

Surat Municipal Corporation has huge healthcare infrastructure including 2 major hospitals i.e. Surat Municipal Institute of Medical Education & Research (SMIMER) and Maskati Hospital. SMC provides primary health care services through 55 urban health centres of which 8 are Community Health Center and 12 are Urban Health Centers with Maternity Home.

Details of existing hospitals and health centres:

The e-Health project would cover all the hospitals, Community Health Centers (CHCs), Urban Health Centres (UHCs), Urban Health Centres & Maternity Homes, etc. which comprises:

- Surat Municipal Institute of Medical Education & Research (SMIMER) – 1000+ Bedded.
- Maskati Hospital – 160 Bedded
- Urban Health Centres –**35** Numbers.
- Urban Health Centres & Maternity Homes –**12** Numbers.

- Community Health Centres –**8** Numbers.

The same solution will be implemented in new CHCs, UHCs and Hospital that may come up in future.

The bed details of various health care facilities are as under:

HOSPITAL/HEALTH CENTRE NAME	NO. OF BEDS
1. Surat Municipal Institute of Medical Education & Research (SMIMER)	1000+
2. Maskati Hospital	160
3. Rander Urban Health Centre & Maternity Home	20
4. Lakpati Urban Health Centre & Maternity Home	16
5. Kadiwala Urban Health Centre & Maternity Home	14
6. Asarawala Urban Health Centre & Maternity Home	10
7. D.K.M. Urban Health Centre& Maternity Home	15
8. Kshetrapal Urban Health Centre & Maternity Home	10
9. Singanpoor Urban Health Centre and Maternity Home	15
10. Varachha Urban Health Centre& Maternity Home	20
11. Karanj Urban Health Centre& Maternity Home	20
12. Pandesara Urban Health Centre & Maternity Home	15
13. Althan Urban Health Centre & Maternity Home	16
14. Limbayat Urban Health Centre & Maternity Home	15
Total No. Of Beds	**1346+**

The total bed capacity of all the above hospitals & health centres across Surat would be around 1346+ beds. Interoperability between all the above hospitals & health centres will be maintained.

Surat Municipal Institute of Medical Education & Research (SMIMER):

Surat Municipal Institute of Medical Education and Research (SMIMER) is a medical college and teaching hospital in Surat, Gujarat, India. It was established in 2000 and has been affiliated to the Veer Narmad South Gujarat University.

SMIMER is owned and run by the Surat Municipal Corporation and is approved by the Medical Council of India under MCI Act 10 A.

The college has its own hospital located next to the medical college complex with 1000+ beds, out of which 90% are free beds and 10% are paying beds in the special wards. The hospital is a non-profit organization run by Surat Municipal Corporation.

Below section provides the basic information about the hospital setup for understanding purpose only. Bidder can visit https://www.suratmunicipal.gov.in/smimer or can make a personal visit to the institute.

SMIMER HOSPITAL KEY STATISTICS & HIGHLIGHT

#	PARAMETER	DESCRIPTION
1.	IPD Admissions per day	157 Bed Occupancy - 89.16%
2.	Casualty/Emergency	146/DAY OT - 2 BEDS - 20

		MLCS - YES 15-20 DOG BITE CASES/DAY
3.	OPD/DAY	2000 per day
4.	OPDS FOR	Medicine, Pediatric, Dermatology, Psychiatry Pulmonary Medicine, Surgery Orthopedic, ENT Ophthalmology, Dentistry Obstetrics & Gynecology PPTCP (Mamta Clinic) GSNP+, Vaccination STD Care, VCTC RNTCP, Blood Bank Physiotherapy, Audiometry Radiology C.T Scan, Interventional Radiology, Pathology Biochemistry, Microbiology, Emergency Medicine (Casualty), Medico-legal autopsy, Radio-diagnosis, Neurology, Nephrology, Gastroentrology, PMR.
5.	DEPARTMENTS	General Medicine, Pediatric Dermatology, Venereology, Leprology Diagnostic Laboratory Department Psychiatry, General Surgery Orthopaedic, E.N.T., Ophthalmology Obstetrics &Gynaecology Anaesthesiology Dentistry, Radio Diagnosis Pulmonary Medicine Physiotherapy, Emergency Medicine, Radio-diagnosis, Neurology, Nephrology, Gastroenterology, PMR.
6.	LABORATORY	BIOCHEMISTRY (BLOOD CHEMISTRY - 3249/DAY, ENDOCRINOLOGY - 80/DAY, OTHER FLUIDS - 5/DAY), MICROBIOLOGY (SEROLOGY - 80/DAY, IMMUNOLOGY - 98/DAY, VIROLOGY-290/DAY, BACTERIOLOGY - 316/DAY, TUBERCULOSIS-22/DAY, MYCOLOGY - 11/DAY, PARASITOLOGY-13/DAY), HOSPITAL SURVELIANCE-35/DAY, OTHERS-47/DAY, PATHOLOGY (HEMATOLOGY - 792/DAY, HISTOPATHOLOGY - 17/DAY, CYTOPATHOLOGY - 6/DAY, CLINICAL PATHOLOGY - 168/DAY, AUTOPSY- 2/DAY, FNAC - 4/DAY)
7.	RADIOLOGY	CT - 20/DAY, MRI-22/DAY, X-RAY-491/DAY, USG-134/DAY, INTERVENTIONAL RADIOLOGY – 9/DAY MAMMOGRAPHY 8 RADIOLOGISTS AVAILABLE.
8.	PHARMACY	YES, THERE IS A GENERAL STORE & ONE CENTRAL MEDICAL STORE.
9.	BLOOD BANK	32 DONORS/DAY, CAMP - 14/MONTH, CROSS MATCH - 79/DAY, ISSUED UNITS - 49/DAY
10.	OPERATION THEATRES	18 NOS. (12 MAJOR & 8 MINORS) 26 MAJOR SURGERIES/DAY 133 MINOR SURGERIES/DAY NORMAL DELIVERIES - 16/DAY
11.	ICUS - MICU, ICCU, SICU, PICU, NICU	MICU - 227/MONTH, ICCU - 235/MONTH, SICU - 216/MONTH, PICU - 199/MONTH, NICU - 694/MONTH EQUIPMENT - CARDIAC MONITORS, SUCTION MACHINES, PHOTOTHERAPY UNITS, MONITORS, NEBULIZERS, EXTERNAL PACEMAKERS, MULTIPARAMETER MONITOR (WITH CAPNOGRAPH) RESPIRATORY GAS MONITOR, RESPIRATORY GAS MONITOR WITH PULSE OXIMETER, DEFIBRILLATORS, VENTILATORS, BOYLES'

		APPARATUS, INFUSION PUMP, DRIP INFUSION PUMP
12.	MILK BANK, EYE BANK ETC.	YES
13.	INTERNET CONNECTIVITY (ILL/MPLS)	CURRENTLY - 100 MBPS PROPOSED & SOON TO BE AVAILABLE - 1 GBPS
14.	WORKING	24 HRS

DEPARTMENT WISE LAYOUT

DEPARTMENT	DEPT. OFFICE / BLOCK	OPD ROOM NO	INDOOR WARD	NO OF UNIT	NO OF TEACHING BEDS	SPECIAL BEDS
Medicine	2nd Floor	11	E-4, E-5 D-4 MLP	8	240	ICU (20-Beds) ICCU (20-Beds) Dialysis (10-Beds)
Pediatrics	1st Floor	39	E-1 MLP	4	120	NICU(20-Beds) PICU (20-Beds)
Skin	4th Floor	10	D-4	1	30	
Anesthesia	1st Floor	25	---	---	---	
Pulmonary Medicine	1st Floor	42	E-6	1	40	RICU (5-Beds)
Psychiatry	4th Floor	25	D-3	1	30	---
Surgery	2nd Floor	07	E-2, D-2, MLP	8	240	SICU (20-Beds) Burn ICU (16-Beds)
Dental	1st Floor	40	---	---	---	---
Orthopaedics	1st Floor	12	E-3, MLP	4	120	---
ENT	3rd Floor	20	D-3, MLP	2	60	---
Ophthalmology	3rd Floor	21	D-3, MLP	2	60	---
Ob & G	1st Floor	26	D-1,4 F-1,2,3	4	120	Labour Room (7-Beds) OICU (20 Beds)
Radiology	Ground Floor G-Block	45,46,47,48, 49,55,56,57	---	---	---	---

Central Laboratory	G-Block 1st Floor	50/59	---	---	---	---
Biochemistry Lab	A Block 1st Floor	---	---	---	---	---
Pathology Lab	B Block G.F.	---	---	---	---	---
Microbiology Lab	B Block 1st Floor	---	---	---	---	---
Physiotherapy	Ground Floor E-Block	100	---	---	---	---
Casualty	Ground Floor	1	---	--	30	---
Emergency Medicine	New Building	-	1	24		ICU-6 Beds
TOTAL				36	1090	164 Beds

*MLP = Multilevel Parking

BLOCK-WISE LAYOUT

The Hospital has 6th blocks - D, E, F, G, H, and I; these are interring connected.

Block	**Services on Ground floor (O.P.D)**		**Services on 1st Floor to 3rdFloor (Indoor Ward)**
D (Ground + 3 Floors)	Obstetrics &Gynaecology		Obstetrics &Gynaecology
	Paediatrics		Skin & VD
	PPTCT		Psychiatry
	Vaccination		ENT
	Ophthalmology		Ophthalmology
	E.N.T		Eye Bank
	Skin/ Pulmonary Medicine		Labour room with Special room
Block	Services on Basement	Services on Ground Floor	Services on 1st to 7th Floors (Indoor Ward)
E (Basement+ Ground + 7 Floors)	Medical Record Section	Waiting space for patient's relatives	Paediatrics Ward
		Case window	Surgical Ward
		Pharmacy	Orthopaedics Ward
		Dental OPD	Medicine Ward
		Hospital Medical Stores	Pulmonary Medicine Ward
		Physiotherapy	Burns Ward
		Central Medical Store	

Block	Services on Basement	Services on Ground Floor	Services on First Floor	Services on Second Floor	Services on Third Floor
F (Basement+ Ground + 3 Floors)	Laundry Central Sterilization (CSSD)	Canteen-Kitchen	Labour Room	O & G ward	O & G ward

Block	Services on Ground Floor	Services on First Floor	Services on Second Floor	Services on Third Floor
G (Ground + 3 Floors)	Medical Store	Gynaecology OT	Surgical OT	E.N.T. O.T
	Casualty	Recovery room	Recovery room	Ophthalmology O.T
	Casualty OT	Paediatrics I.C.U.	Surgical I.C.U.	Ortho. OT, Recovery room
	X-Ray			Medical I.C.C.U
	Medical Store			Ortho. OT, Recovery room
	Sonography			Medical I.C.C.U
	Clinical laboratory section			
	Blood bank			
	Inquiry			

Block	Services on Ground Floor	Services on First Floor	Services on Second Floor	Services on Third Floor
H (Ground + 3 Floors)	Medical OPD	NICU	Dialysis	Medical I.C.U
	Surgical OPD	Project " Yashoda" (Human Milk Bank)		
	Skin OPD			
	Injection Room			
	Minor OT			

Block	Services on Ground Floor (OPD)	Services on First to third Floor
I(Ground + 3 Floors)	Orthopaedics	Departmental Office of Medicine
	E.N.T	Surgery
	Pulmonary Medicine	Pediatric
	Anaesthesia	Skin
		Pulmonary Medicine
		Psychiatry
		Orthopaedics
		ENT
		Ophthalmology

		Anaesthesiology
		Obstetrics and Gynaecology
		Seminar Room with Audio Visual Aids

Block	Services on Ground Floor	Services on First Floor	Services on Second Floor	Services on Third Floor
Multilevel Parking (Ground + 2 Floors) ***(This is an interim arrangement, till construction of new hospital building)***	General Wards of Medicine, Surgery, Pediatrics, Orthopedics, ENT, Ophthalmology. Each floor has 4 wards of ~30 beds.			

INPATIENT DEPARTMENT

Each ward is provided with doctor's duty room, nurse's duty room, nursing station, pantry, examination / procedure room, ward side laboratory & clinical demonstration areas to accommodate 40 students. Major departments have also one seminar hall. Clinical demonstration rooms and Seminar halls are provided with audio visual aids and other teaching facilities.

(a) General Medicine	
Main Facilities	List of Main instruments
1. Echocardiography 2. Exercise Stress Testing 3. EEG 4. Pulmonary Function Test 5. Ventilator Therapy 6. Monitoring & Care of all other routine medical patient including those with infectious disease. 7. Monitoring & care of patients with poisonings, snake bites etc.	1. ECHO Machine 2. TMT Machine 3. EEG Machine 4. PFT Machine 5. Ventilators 6. Defibrillators 7. Multipara Monitors 8. Haemodialysis Machine 9. Portable HSG Machine 10. Portable X ray Machine

(b) Pediatric	
Main Facilities	List of Main instruments
1. Project Yashoda (Human Milk Bank) 2. Child Welfare Clinic 3. T.B. Clinic 4. Child Living with HIV Clinic 5. Child Guidance Clinic 6. Adolescent Guidance Clinic 7. CRC clinic 8. HRC Clinic 9. Nephrology Clinic 10. Cardiology Clinic 11. Neurology Clinic 12. Asthma Clinic 13. Rheumatology Clinic 14. GIT Clinic	1. Ventilator 2. Overhead Warmer 3. Phototherapy Unit 4. Baby Incubator 5. Pulse Oximeter 6. Cardiac Monitor 7. N.I.B.P 8. Multipara Monitor 9. Infusion Pump 10. CFPc Machine 11. Echocardiography machine

15. Hematology Clinic	
(C) Dermatology, Venerology, Leprology	
Main Health care Facilities	**List of Main instruments**
1. Diagnosis & Treatment all dermatologic (Skin disease) Problems. 2. Facility of Skin Biopsy. 3. Diagnosis & Treatment of all sexually transmitted diseases (STD). 4. Diagnosis & Treatment of leprosy. 5. Facility for cryotherapy (Liquid Nitrogen), and Nail surgery 6. Facility for gram/ Z-N / giemsa stains & KOH-Smear for fungus 7. Facility of Electro surgery (for warts, corn, skin tags, molluscm- contagiosm, granuloma, pyogenicum, etc) 8. Facility of punch grafting, blister grafting - for treatment of vitiligo. 9. Intralesional injection (steroid / other) treatment 10. Light & DGI microscopy 11. Patch testing for Allergic contact dermatitis. 12. Special clinics : Vitiligo, psoriasis, leprosy, STI (Surksha clinic), auto-immune disease, vesiculobullous disease, contact dermatitis, Melasma. 13. Acne surgeries :Comedone extraction, Evacuation surgeries , Cryoslush, Dermaroler (Microneeding), puch excision/elevation, subcision. 14. PUVA therapy for psoriasis, Vitiligo, parapsoriasis , Pityriasis rosea, Pityriaislichenoideschronica etc 15. NBUVB therapy for psoriasis, Vitiligo, Eczems, morphoea, parapsoriasis, pityriasis rosea, pityriaislichenoides chronic etc 16. R-F cautary : precise surgery with superior cosmetic result for warts, corn , skin tags, molluscum-contagiousm, Dermatosis papulosa nigra, granuloma, pyogenicum, etc. 17. Microdermabrader for adjuvant therapy of acne scar, melasma, facial melanosis. 18. Chemical peel : For acne, melasma, pigmentation, scar & rejuvenation. 19. Diode hair reduction lsaer : for permanent hair reduction 20. Q-Switch Nd-Yaglaser : for removal of tattoo , and hyper- pigmentatin& naevi	1. Electro cautery machine. 2. Wood's lamp. 3. Microscope with dark ground illumination. 4. Digital camera. 5. Slider projector. 6. Overhead projector. 7. Biopsy punches. 8. Radiofrequency cautery Machine- Elman 9. UVA therapy unit (12 tube multipurpose) 10. NBUVB therapy unit (12 tube multipurpose) 11. Micro dermabrader 12. PUVA chamber 13. NB-UVB chamber 14. Fractional co2 laser 15. Q-Switch Nd-Yag laser (hyper-pigmentation & tattoo removal) 16. Diode Hair reduction laser (for permanent hair reduction) 17. Fractional co2 laser for scar treatment

21. Fractional co 2 laser : for treatment of scars, epidermal naevi etc.

(d) Diagnostic Laboratory Department
Main Facilities
1. Pathology & Blood Bank 2. Microbiology 3. Biochemistry

(e) Psychiatry	
Main Health care Facilities	List of Main instruments
1. Various Psychotherapies. 2. ECT (Electro convulsive therapy). 3. De-addiction (Alcohol, Tobacco, Opioid, Cannabis, Benzodiazepines etc.) 4. Pharmacotherapy. 5. Group Therapies 6. Biofeedback, Relaxation & Stress management	1. Brief pulse ECT Machine

(f) General Surgery	
Main Health care Facilities	List of Main instruments
1. All Type of Abdominal Surgeries 2. Major G.I. Surgeries 3. Thoracic Surgeries 4. Laparoscopic surgeries 5. Upper G.I. Scopy with sclerotherapy 6. Lower G.I. Scopy 7. Cystoscopy 8. Cysto–uroflowmetry 9. Burns Management 10. Paediatric Surgery 11. Plastic Surgery 12. Cancer Surgery (Onco-surgery) 13. Neurosurgery 14. 8 Bedded SICU 15. NSV (No Scalpel Vasectomy)	1. Laparoscope 2. Upper G.I. Scopes 3. Colonoscopy 4. Laser 5. Cystoscope 6. Urodynamic System 7. Ultra Sonography Machine 8. G.I. Staplers 9. Choledochoscope 10. Flexible Bronchoscope 11. Harmonic Scalpel 12. Pneumatic Lethotriptor 13. Ureterorenoscope 14. IITV 15. STERRAD – Plasma Sterilizer

(g) Orthopedic	
Main Health care Facilities	List of Main instruments
1. OPD care for cold & trauma cases. 2. Indoor facility -- traction & back care. 3. Surgery for all fractures, e.g. Limbs, Neck, I/T Shaft femur, Leg bones and foot bones, Arm, Fore Arm & Hand Bones 4. Cold Cases Surgery. e.g. CTEV, Polio, Cerebral Palsy etc. 5. Replacement surgery for joints.	1. Basic Instrument sets for fracture 2. Small fragment and large fragment 3. External fixator (Tibia & Femur) 4. C-Arm (Immage Intensifier) 5. Portable X-ray machine 6. Arthoscope with TV & Camera 7. Plaster room equipment set 8. Physiotherapy and occupational therapy equipment sets 9. Operation room equipment sets

6. Arthroscopy diagnostics & therapeutics.	10. Neumatic drill with attachment with saw and radiolucent drive 11. Bohler's and Thoma's and other splints 12. Equipment for bed side ward laboratory 13. General Instrument sets 14. Cervical traction kit and lumber traction kit 15. TKR and THR arthoplasty instrument set 16. Table top sterilizer 17. ACL Set with instrument for arthroscopic surgery

(h) E.N.T	
Main Health care Facilities	List of Main instruments
1. Ear Surgeries like tympanoplasty, Mastoidectomy and Stapedotomy 2. Rhinoplasty. 3. Head & Neck cancer surgery with reconstruction. 4. Maxillectomy 5. Laryanigectomy 6. F.E.S.S. 7. Tracheostomy. 8. Thyroid, Parathyroid, Parotid surgery	1. EAR operating Microscope. 2. Drill & Hand piece. 3. Nasal Endoscopes, and endovision camera and FESS instruments . 4. Direct Laryngoscope (Fiberoptic). 5. RIGID Bronchoscope (Fiberoptic). 6. RIGID Oesophagoscope (Fiberoptic). 7. Microlaryngeal Surgery Instruments. 8. Pure tone and Impedanee Audiometers 9. ENG machine 10. BERA machine

(i) Ophthalmology	
Main Health care Facilities	List of Main instruments
1. Eye Bank 2. Cataract Surgery with I.O.L implantation 3. Glaucoma Surgery 4. Squint Surgery 5. Lid Surgery 6. Retinal Lasers, Retinal surgeries 7. Medical retina 8. Keratoplasty	1. Operating Microscope 2. Slit Lamp Biomicroscope 3. Induct Ophthalmoscope 4. Indirect Ophthalmoscopes 5. Keratometer 6. A-scan 7. Synoptophore 8. Auto Refract meter 9. Diode-Green Laser 10. Fundus camera 11. Specular Microscope 12. Phacomachine 13. Automated Perimetry 14. Ophthalmic B-Scan 15. Pachymtry

(j) Obstetrics and Gynaecology	
Main Health care Facilities	List of Main instruments
1. Antenatal Clinic 2. Sterility Clinic 3. Postpartum Clinic & Family welfare 4. Cancer Detection Centre 5. P P T C T Programme 6. Laproscopic surgery Hysterectomy	1. Laproscope (Video Laproscopic Operative Unit) 2. Hysteroscope 3. Ultra sound with Colour Doppler 4. Cardiotopography machine 5. Pulse oxymetry NIBP 6. Colposcope 7. Cryosurgical unit

7. Electronic fetal Monitoring and Laproscopic surgeries	8. Electrocautery 9. Thermal Ballon Ablation (Thermal Choice) 10. Versascope-Hysteroscopy unit

(k) Anaesthesiology	
Main Health care Facilities	**List of Main instruments**
1. Anaesthesia given to all age group of patients.	1. Anaesthesia Machine including advanced anaesthesia machine 2. Multiparameter monitor with EtCO2 3. Defibrillator Machine with external pacing facility 4. Spiro analyses 5. Pulse Ox meter 6. Syringe pump 7. Endobronchial scopes 8. LMA C TRACH 9. TENS 10. Mannikin for CPR 11. PNS 12. AED 13. Oxylog Ventilator

(l) Dentistry	
Main Health care Facilities	**List of Main instruments**
1. Extraction of teeth 2. Silver filling 3. Complete Denture / Partial Denture 4. Scaling of teeth 5. All type of Maxillofacial surgery	1. Dental X-Ray Machine 2. Dental Trolley 3. Ultrasonic Scalar

(m) Radio Diagnosis	
Main Health care Facilities	**List of Main instruments**
1. All types of X-Ray & USG Investigation.	1. C T Scan Machine 2. 300MA X-RAY MACHINE 3. POLYDOROS/KL/800 MA F3000 WITH IITV, X-RAY MACHINE(SIEMENS) 4. 500 MA- X-ray machine with DSA - IITV 5. TWO-TUBE,500maX-ray machine Siemens) 6. Mammography -(X-TRONICS) 7. Ortho Pantomography (Opg) 8. Computed Radiography, Digital Radiography (C.R.D.R. System With Camera, Work Stations And Other Accessories) 9. Philips EnvisorSography Machine With Colour Dopplor 10. Sonography Machine Esaote My Lab 50 11. Sonography Machine Esaote ,Mylab- 60GE Voluson S8–3D 4D Ultrasound machine

(n) Pulmonary Medicine

Main Health care Facilities	List of Main instruments
1. R. N T C P. , DOTS-Plus 2. Pulmonary function 3. Asthma COPD 4. Bronchoscopy	1. Pulmonary function test 2. Fiberoptic Bronchoscopy 3. Pulse-Oximeter 4. Ventilator

(o) Physiotherapy	
Main Health care Facilities	**List of Main instruments**
1. Medical Rehabilitation 2. Surgical Rehabilitation 3. Physical Therapy 4. Occupational Therapy 5. Speech Therapy 6. Clinical Psychology and Vocational Guidance 7. Prosthetic and Orthotic devices	1. S.W.D. 2. Electrical Stimulation. 3. Infrared 4. Ultrasonic 5. Wax therapy 6. Hydrocollator 7. Psychological assessment tools 8. Neuro-30developmental kit 9. Dr's Speech

(p) Emergency
Main Health care Facilities
• 24 hours emergency services are maintained with experienced doctors and nursing staff to deal with all the types of emergencies. Daily workload in the emergency department is 105 patients. • Casualty OPDs, Wards and Operation Theatres are equipped with latest equipment and required staff is available for 24 hours round the clock services. Bed strength in the casualty department is 20 and there are two operation theatres in this section. Emergency operations are performed in this section. • Routine Post-mortems as well as Medico-legal Post-mortems are being done in this hospital.

MEDICAL COLLEGE

SMIMER, being a Medical College, follows the rules & regulations of Medical Council of India, Veer Narmad South Gujarat University & Government of Gujarat with commitment to maintain highest standards in the field of Medical education.

The M.B.B.S degree of the Surat Municipal Institute of Medical Education & Research (for 100 annual admissions) is recognized by the Medical Council of India& Ministry of Health & Family Welfare, Govt. of India, New Delhi vide letter NO. U 12012/34/99-Me(P).

In the academic year of 2009-10, is permitted to grant admissions for additional 50 under graduate students by the Ministry of Health & Family Welfare, Govt. of India, New Delhi vide its letter F.No.U.12012/863/2008-ME (P-II).

SMIMER is affiliated for undergraduate and Post graduate courses with the Veer Narmad South Gujarat University.

Medical College Building

Both college and hospital sections are placed in the same campus having a total floor area of 18426.9 sq.m and 75216.53 sq.m respectively.

There are four separate blocks in the medical college and each block being a three story building. Pre & Para-clinical departments are housed in Block "A", "B" & "C", while administrative section

including the office of the Dean is placed in block "D". In the administrative block there are various sections like establishment, academic, student and accounts.

Note: Information provide in above section is for understanding purpose. Bidder can visit https://www.suratmunicipal.gov.in/smimer or can make a personal visit to the institute for more details.

MASKATI HOSPITAL

The Maskati Charitable Hospital was originally started as a dispensary in 1864 and gradually augmented. The hospital is having 160 bed capacity.

KEY STATISTICS & HIGHLIGHT

#	DESCRIPTION	MASKATI HOSPITAL
1.	Beds	160
2.	User (Approximate)	200+
3.	OPD/Day	500-600
4.	IPD Admissions per day	Occupancy - 60%
5.	Casualty/Emergency	MLCs - Yes
6.	OPDs for	Medicine Paediatric Dermatology Psychiatric Surgery Orthopaedic E.N.T. Plastic Surgery Physiotherapy Vaccination Family Welfare Clinic OphthalmologyTB-Chest
7.	Departments	Medicine, Opthalmology, Psychiatric, Surgery, Orthopaedic ,Dental, Paediatric, Skin & V.D., ENT, Dialysis Unit, Speech Therapy, Physiotherapy for Indoor Patients 4 General Ward Operation Theatre: Burns O.T. 1, Casualty. O.T. 1, Septic O.T. 1 Central Medical Stores & Pharmacy
8.	Laboratory	Laboratory: Clinical Pathology, With Auto Analyzer, Blood gas Analyzer, Various profile study Microbiology Cytopathology
9.	Radiology	X-Ray
10.	Pharmacy	Yes There is a central store.
11.	Operation Theatres	General SurgeryPlastic Surgery Paediatric Surgery Laparoscope & Laparoscopic Surgery Cystoscope C Arm Surgery Orthopaedic E.N.T. BurnsOphthalmic
12.	ICU, ICCU	Yes
13.	Internet Connectivity (ILL/MPLS)	Currently - 50 Mbps Proposed & soon to be available - 500 Mbps
14.	Working	24 Hrs

Following Department having outdoor & Indoor facility having specialist & super specialist Medical consultants.

Medicine	Ophthalmology	Psychiatric
Surgery	Dental	Paediatric
Skin & V.D.	ENT	Dialysis Unit
Speech Therapy	Physiotherapy	Orthopaedic
For Indoor Patients	4 General Ward	
Operation Theatres		
Central Medical Stores & Pharmacy		

Investigation Facility:

#	**Facility**
1.	X-Ray: Routine & specialized X-ray. Portable X-ray facility.
2.	Laboratory: Clinical Pathology, With Auto analyser, Blood gas analyser, various profile study.
3.	Microbiology
4.	Cytopathology

Name of the Department	Equipment and Instruments
I.C.C.U./I.C.U • No. of beds = 15 (Fully Air – conditioned) • I.C.C.U. is working 24 hours / Round the clock, so as it can provide better services to the patients. • Well equipped with modern medical and Bio-Medical equipment & gadgets to foresee, treat and provide care to patients who need intensive cardiac care • All beds are equipped with central O2 line, Central suction Line.	• Ventilators • Defibrillators • Cardiac monitors • E.C.G. • Pulse Oximeters • Glucometers • Infusion Pumps • Suction Machines
Surgical Ward (General Surgery, E.N.T, Ophthalmology, Orthopaedic) • No. of beds = 47	• Hydraulic Operation table • E.N.T./Surgical Operative Microscope • Sterilizer • Autoclave • Fumigation Machine • Horizontal Steam sterilizer • Multipurpose Instrument trolley • Cautery machine • Suction machine
Orthopaedic	• Operation Table • I. I. T. V. Machine • Air Compressor Machine
Ophthalmology	• Ophthalmic microscope • Phaco machine
E.N.T	• ENT microscope • Nasal sinoscope • Paediatric bronchoscope • Adult bronchoscope
Anesthesia	• Boyle's apparatus • Pulse Oximeter • Multipara monitor

Dental	• Dental Chair with Equipment
X-Ry Department	• X-Ray machine(fix unit, mobile units)
Physiotherapy Department	• Laser Scanner & Infrared Laser • Interferential therapy unit • Diagnostic stimulator • Short-wave Diathermy • Micro-wave Diathermy • Ultrasonic unit • Paraffin Wax Bath Unit • Pelvic Traction Unit • Cervical Traction Unit • Pulse short wave diathermy unit

OPD for all Departments

OPD FOR ALL DEPARTMENTS		
Medicine	Paediatric	Dermatology
Psychiatric	Surgery	Orthopaedic
E.N.T.	Plastic Surgery	Physiotherapy
Vaccination	Family Welfare Clinic	Ophthalmology
Paediatric Surgery	TB Chest	

Operation Theatre

OPERATION THEATER		
General Surgery	Orthopaedic	Laparoscope & Laparoscopic Surgery
E.N.T. Burns	Plastic Surgery	

URBAN HEALTH CENTRES AND COMMUNITY HEALTH CENTRES

Urban Health Centres with Maternity Ward – 12 Nos.

Urban Health Centres Without Maternity Ward - 35 Nos.

Community Health Centres – 8 Nos.

Total – 55 Nos.

Sr.No.	ZONE	Type	Department/Healh Centre Name
1.	Central Zone	MT	Lakhpati Urban Health Centre & Mt. Home
2.		MT	Kadiwala Urban Health Centre & Mt. Home
3.		MT	Asarawala Urban Health Centre & Mt. Home
4.		MT	D.K.M. Urban Health Centre & Mt. Home
5.		MT	Ksetrapal Urban Health Centre & Mt. Home
6.		UHC	Sonifalia Urban Health Centre
7.		UHC	Mahidharpura Urban Health Centre
8.		UHC	B.P. Urban Health Centre

9.		UHC	Variyavi Bazar Urban Health Centre
10.	East Zone A	MT	Varachha Urban Health Centre & Mt. Home
11.		MT	Karanj Urban Health Centre & Mt. Home
12.		CHC	Puna Urban Health Centre
13.		UHC	Hirabag Urban Health Centre
14.		UHC	Fulpada Urban Health Centre
15.		CHC	Magobshaheri Arogya Kendra
16.	East Zone B	UHC	MotaVarachha Urban Health Centre
17.		UHC	SarthanaSimada Urban Health Centre
18.		UHC	Puna SimadaUrben Health Centre
19.		UHC	Nana Varachha Urban Health Centre
20.		UHC	Kathodara Urban Health Centre
21.	West Zone	MT	Rander Urban Health Centre & Mt. Home
22.		UHC	Adajan Urban Health Centre
23.		UHC	Palanpore Urban Health Centre
24.		CHC	PAL Urban Health Centre
25.		UHC	VariyavTadvadi Urban Health Centre
26.		UHC	Icchapore Urban Health Centre
27.	South West Zone	MT	Althan Urban Health Center& Mt. Home
28.		UHC	Panas/Athwa Urban Health Center
29.		UHC	Umra Urban Health Center
30.		UHC	Dumas Urban Health Centre
31.		CHC	VesuSamuhik Arogya Kendra
32.	North Zone	CHC	Katargam Samuhik Arogya Kendra
33.		UHC	Ved Road Urban Health Centre
34.		MT	Singanpoor Urban Health Centre & Mt. Home
35.		CHC	KosadSamuhik Arogya Kendra
36.		UHC	Utran Urban Health Center
37.		UHC	Chhaprabhatha Urban Health Centre
38.	South Zone	MT	Pandesara Urban Health Centre & Mt. Home
39.		UHC	Udhna Urban Health Centre
40.		UHC	Vadod Urban Health Center
41.		UHC	Bhestan Urban Health Centre
42.		UHC	Unn Urban Health Centre
43.		UHC	Vijyanagar Urban Health Centre
44.		CHC	BamroliSamuhik Arogya Kendra
45.		UHC	UNN GAM Urban Health Center

46.		UHC	KanakpurKansadUrabn Health Centre
47.	South East Zone	MT	Limbayat Urban Health Center& Mt. Home
48.		UHC	Umarwada Urban Health Centre
49.		UHC	Navanagar Urben Health Center
50.		UHC	NavagamDindoli Urban Health Center
51.		UHC	LimbayatMithikhadi Urban Health Center
52.		UHC	Godadra Urban Health Center
53.		UHC	Dindoli Urban Health Centre
54.		UHC	Parvat Urban Health Centre
55.		CHC	BhathenaSamuhik Arogya Kendra

Urban Health Centres having Maternity Homes (12 Nos.):

S NO.	DESCRIPTION	URBAN HEALTH CENTRE & MATERNITY HOME
1.	User (Approximate)	10-15 (1 Registration Desk, 5 Nurses, 1 Pharmacist, 1 LabTechnician,4 Medical Officer)
2.	OPD/Day	200-250
3.	IPD Admissions per day	Approx. – 7-10 per day
4.	Casualty/Emergency	Refers to Maskati/SMIMER
5.	OPDs	General Medicine OPD, Gynaecologist OPD, Pediatric OPD, (Mamata Clinic) (AIDS Control), Vaccination, STD Care, VBDC Programme RNTCP (DoTs for TB), Injection Room, RCH (Family Planning) and other NHM Programme
6.	Departments	Govt. Schemes, TeCHO Plus, Ministry of Health & family Welfare, Govt. of India NUHM HMIS, Govt. of Gujarat Health Schemes & Programs, ANM workers covering 10,000 population per ANM
7.	Laboratory	Pathology Normal Microscopic level tests
8.	Radiology	USG
9.	Pharmacy	Yes
10.	Blood Bank	No
11.	Operation Theatres	Yes
12.	ICUs - MICU, ICCU, SICU, PICU, NICU	No
13.	Milk Bank, Eye Bank etc.	No

14.	Internet Connectivity (ILL/MPLS)	Currently - 50 Mbps Proposed & soon to be available - 100 Mbps
15.	Working	24 Hrs

COMMUNITY HEALTH CENTRE (Samuhik AAROGYA KENDRA) (8 Nos.)

#	DESCRIPTION	COMMUNITY URBAN HEALTH CENTRE
1.	User (Approximate)	10-15 (1 Registration Desk, 5 Nurses, 1 Pharmacist, 1 Lab Technician, 1 x-ray technician, 4 Medical Officer)
2.	OPD/Day	200-250
3.	IPD Admissions per day	Approx.– 7-10 per day
4.	Casualty/Emergency	Refers to Maskati/SMIMER
5.	OPDs	General Medicine OPD, Gynecologist OPD, Pediatric OPD, Dental OPD, Opthal OPD, ENT OPD, Physiotherapy OPD, (Mamata Clinic) (AIDS Control), Vaccination, STD Care, VBDC Programme RNTCP (DoTs for TB), Injection Room, RCH (Family Planning) and other NHM Programme
6.	Departments	Govt. Schemes -TeCHO Plus, Ministry of Health & family Welfare, Govt. of India NUHM HMIS, Govt. of Gujarat Health Schemes & Programs, ANM workers covering 10,000 population per ANM
7.	Laboratory	Pathology Normal Microscopic level tests
8.	Radiology	USG
9.	Pharmacy	Yes
10.	Blood Bank	No
11.	Operation Theatres	Yes
12.	ICUs - MICU, ICCU, SICU, PICU, NICU	No
13.	Milk Bank, Eye Bank etc.	No
14.	Internet Connectivity (ILL/MPLS)	Currently - 50 Mbps Proposed & soon to be available - 100 Mbps
15.	Working	24 Hrs

Urban Health Centres without Maternity Homes (35 Nos.):

#	DESCRIPTION	URBAN HEALTH CENTRE
1.	User (Approximate)	10-15 (1 case writer, 2 Nurses, Clerks, Senior Clerks, Pharmacists, 2 Medical Officers, 1 Lab Technician, 10 ANMs, 2 Operator)
2.	OPD/Day	200-220
3.	IPD Admissions per day	-
4.	Casualty/Emergency	Refers to Maskati/SMIMER
5.	OPDs for	General Medicine OPD, Gynaecologist OPD, Pediatric OPD (AIDS Control), Vaccination, STD Care, VBDC Programme, RNTCP (DoTs for TB), Injection Room, RCH (Family Planning) and other NHM Programme
6.	Departments	Govt. Schemes - TeCHO Plus, Ministry of Health & family Welfare, Govt. of India NUHM HMIS, Govt. of Gujarat Health Schemes & Programs, ANM workers covering 10,000 population per ANM
7.	Laboratory	Pathology Normal Microscopic level tests
8.	Radiology	-
9.	Pharmacy	Yes
10.	Blood Bank	No
11.	Operation Theatres	No
12.	ICUs - MICU, ICCU, SICU, PICU, NICU	No
13.	Milk Bank, Eye Bank etc.	No
14.	Internet Connectivity (ILL/MPLS)	Currently - 50 Mbps Proposed & soon to be available - 100 Mbps

Total Approximate Number of Beds in all the Health Centres is around 186.

3. Scope of Services for the Project

The Proposed Integrated Solution for Development of Hospital Management Information System, PACS, QMS, EMS and IT Infrastructure for Hospital referred as e-Health intends to improve the quality and responsiveness of Healthcare Services. The purpose of the RFP is to select System Integrator for eHealth project. SSCDL has vision to utilize latest technology in the best possible way to improvise the operational convenience of the health care facilities and envisages to take the computerization of the hospitals and health centers under SMC to the next level. It is envisaged to undertake the implementation of e-Health in the SMC hospitals and health centres, enabling the data handling in the most optimal way and provide services to citizens in efficient and effective manner.

3.1. BROAD SCOPE OF WORK

The Scope of Work will broadly cover the following:

1. Planning & Customized Development of Centralized HMIS (Hospital Management and Information System), PACS (Picture Archiving & Communication System), QMS (Queue Management System for SMIMER Hospital Only), etc.: Design, Customization, Development, Supply, Integration, Installation, Testing, Implementation, Commissioning & Training for SMIMER Hospital, Maskati Hospital and Various Health Centres of SMC.
2. Supply, Installation, Configuration, Testing and Commissioning of Central Server, Local Servers for HMIS, PACS, QMS etc. as per the requirement and scope of work mentioned for SMIMER Hospital, Maskati Hospital and Urban Health Centres of SMC.
3. Establishment of Wired & Wireless Network Infrastructure: Supply, Installation, Configuration, Testing and Commissioning of network as per the requirement and scope of work mentioned for SMIMER, Maskati Hospital and Urban Health Centres of SMC.
4. Supply, Installation, Testing & Commissioning of Computer Hardware & associated software to implement HMIS, PACS, QMS for Hospitals and Various Health Centres of SMC.
5. Operation and Maintenance of the proposed solution for five years post Go-Live.
6. Integration of existing application/ software implemented by SMC/ SSCDL.
7. Migration of all data from some of existing applications (that are being envisaged to be discontinued) to e-Health.
8. Deployment and supervision of personnel required for the successful completion of the project.

3.2. TO-BE SCENARIO ENVISAGED FOR SMC

To be benefitted from the efficiencies of different health care service units (Hospitals & UHC & CHC of Surat Municipal Corporation) across the city and to have consistent process flow throughout these various health service units, there is a need to go for an integrated system/ solution called e-Health. Main objective of implementing e-Health is to improve the quality, efficiency and effectiveness of healthcare services provided to the citizen/ patients and support continuity, consistency, planning, and informed decision making for proper administration of Health Services. SSCDL intends to select System Integrator to design, development, supply, integration, implementation, operation, maintenance, and management of solution components like HMIS, PACS, QMS, etc. e-Health Implementation will be a critical component of the e-Governance in health care sector initiative by SSCDL and shall support various initiatives taken by the Government of India like Digital India, Smart Cities, Open Data, etc. (e.g., online filing, payments, Aadhar enablement etc.). The solution proposed should have capabilities to integrate with such initiatives for which necessary details and APIs will be provided for integration. The e-Health must be a fully integrated, web-based solution that provides seamless incident – response management, collaboration with various National/ State level Health Schemes/programs.

The project requirements given here are a high level and indicative in nature. The SI is expected to follow industry standards for project implementation. The SI is expected to perform the system study of the Hospital and UHC of SMC and implement technically superior solution.

The proposed e-Health system should be a comprehensive system that integrates all the departments in a hospital and automates most of its major functions. The SSCDL is looking at the following key benefits from the proposed e-Health system:

- Online availability of information
- Improved administration & control
- Automated information flow across various departments avoiding duplication
- Simplified billing & discharge process
- Optimized resource allocation

The SI is required to implement the following components of the Integrated e-Health System under this RFP on turnkey basis. The complete responsibility for end-to-end project implementation will be of the selected SI.

1. Hospital Management & Information System (HMIS)

- Facilitates managing the functioning of the hospital. It integrates all the information regarding patient, doctors, staff and hospital's services & facilities.
- HMIS shall be centralized, fully integrated, web based solution.
- Comprehensive, integrated information system designed to manage overall functioning of a government healthcare institution including patient care, hospital administration and the corresponding service processing.
- Implementation of HMIS according to reference architecture, performance metrics, acceptance criteria's and conformance of industry standards including its testing and certification.

2. Picture Archiving & Communication System (PACS)

- Medical imaging technology which develops filmless hospital. Doctor & patient can access all types of images anywhere in the hospital as well outside the hospital.

3. Queue Management System (QMS)

- QMS manages the crowd in the OPD and area of other services. It is patient care system to reduce the waiting time and improve the services of the hospital.
- QMS is required to implement for SMIMER Hospital only.
- QMS should the spot registration, online Registration (through web portal of HMIS, Mobile Application)

4. Education Management System

- A system for the collection, integration, processing, maintenance and dissemination of data and information to support decision-making, policy-analysis and formulation, planning, monitoring and management at all levels of an education system.
- To be implemented for SMIMER College.

5. Network Infrastructure (LAN & Wi-Fi System)

- Wired as well as wireless mode of network connectivity in the SMIMER hospital consisting of switches, wi-fi, firewall, network cables, etc.

6. Hardware & Server Components for e-Health Project Implementation.

- Supply, Installation, Configuration, and commissioning of Central Server for Hosting e-Health Project at Data Centre (DC) of SMC.
- Supply, Installation, Configuration, and commissioning of end use computer infrastructure at the project locations comprising all hardware, system software, application software and any other software including site preparation for Implementation.

7. Operation, Maintenance, Change Management & Capacity Building of e-Health

- Operation and Maintenance of the entire e-Health Solution for a period of five years from the date of Go-Live.
- Change Management and Capacity Building including Training of users for effective use of system.

3.3. FUNCTIONAL REQUIREMENTS

Selected bidder is required to propose and implement the solution having capability to meet the following requirements. SI will be responsible for supply, install, customisation, testing and commissioning of the solution to meet the technical and functional requirements stated under the RFP.

Below are the indicative requirements for each component:

1.Hospital Management Information System (HMIS) – Functional Requirements

1.1 Clinical The clinical services take care of all system critical clinical information that has a patient context and ensures that proper care is delivered to the right patient at the right time by the right people.	
1.1.1 Patient Management Portal:	
#	**Functional Requirements**
1.1.1.1 Registration	
1.	The system should allow for pre-registration online (e-Health web Portal/ Mobile App) and walk-in patients through registration desk.
2.	This module should capture the patient demographic data (standard Medical Registration Form) and generate a unique patient ID upon successful registration which should be valid during the lifetime of patient. The unique patient ID will be valid for seeking healthcare services within Health facilities provided by Surat Municipal Corporation.
3.	This module should allow search screen where user will be able to retrieve a particular patient's record by keying in the search/ filter criteria. This will also facilitate the user to drill down on a particular record by putting in more search criteria.
4.	The system should indicate if the Patient is liable to pay any fees for availing any healthcare services, based on defined criteria for exemption.
5.	The system should allow the operator to collect applicable fees.
6.	The system should be able to print the registration receipt on a paper or sticker which can be attached to the pre-printed OPD card. The registration receipt is proposed to have Barcode, Unique Patient ID, Payment Information (in case of exempted patients, the payment mentioned will be zero (0)), date time stamp and any relevant information as applicable.
7.	Post registration should be allowed in case of casualty/ emergency. System Should allow the operator to categorized registration as emergency patient.

8.	The system should allow concerned doctors to mark the investigations, procedures, drugs, injections, etc. as "Emergency", so that these Patients will be sequenced on priority at respective department.
9.	The system should have feature to edit & update the already available details of the patient by an authenticated user at a later stage after registration.
1.1.1.2 Appointment	
1.	The system should also allow the Registration desk operator to select the relevant OPD doctor and specialty/OPD Room as per the defined roster available for the day. The system should assist the operator/patient in suggesting an equal distribution of the Patient queue for all doctors in the same OPD.
2.	There needs to be an efficient, user friendly appointments system to enable new and follow-up appointments to be made rapidly for consultations and receiving services like investigations etc. Additionally, there is a requirement to allow for any other hospital wide resource scheduling to be carried out, like, appointments for use of equipment or certain rooms or Operating Theatres etc. The system will allow appointment scheduling to be performed at any point of care within the hospital apart from reception.
3.	The system should allow configuration of maximum number of patients to be assigned to a particular OPD doctor in a particular shift.
4.	The system should allow patient registration record to be automatically forwarded tothe dashboard of the concerned doctor.
5.	The system should display his / her token number on the display unit, and at least next 'x' (customizable department-wise) in sequence. It can be configurable
6.	Patients can elect to receive communications from hospital through automated e-mails, text, and/or phone calls/SMS. Staff need not be involved, thus reducing workload and increasing efficiency, in addition to complying with Meaningful-Use requirements.
7.	Re-scheduling/ Cancellation of appointment with reasons must be possible.
8.	The appointment module should be user friendly and easy to use.
1.1.1.3 Electronic Health Records (EHR)	
1.	The Electronic Medical Records module should facilitate complete online storage of patients' Medical records. The complete history of a patient, along with diagnosis and prescription should be maintained online.
2.	This module should have integrated patient viewer that provides a cross-disciplinary where a patient focused View of clinical information resident in Clinical Data Repository is provided. This would constitute the view to the Electronic Health Record (EHR).
3.	There should be provision for a doctor to prescribe tests from the Lab module and also medication from the Pharmacy module. Users of the Lab and Pharmacy modules should be able to view these requests from their respective locations and provide service to patients.
4.	The EHR will provide access to information in the form of result data, text documents, scanned documents, images and waveforms from interfaced medical devices, as well as integrated clinical systems.
5.	The ICU monitoring chart should help the doctor to monitor the hourly/daily update of vitals. Vitals and frequency of monitoring should be decided for each patient. This helps the doctor to analyse the trend of the vitals for a patient and aids in decision-making.
6.	ICU bedside monitors are part of centralized monitoring system (CMS) which is already in place. Interfacing shall be done with the CMS.
7.	The information will be displayed within tabs and sub-tabs for different types of data groups like clinical summary, history, observations, etc.
8.	The EHR will enable the doctors' access to all other applications relevant to their role through this application (Doctor's Desk)

1.1.1.4 Access of Personal Health Record – Patient's Portal	
1.	The Personal Health Record (PHR) embedded in the Patient Portal should enables patients to view their records in a timely manner. The PHR is constructed from patients' existing medical records. Law & rules shall be applicable as per India.
2.	With the Patient Portal, patients can fill out demographics, family histories, and practice forms online. Once reviewed and approved by hospital or staff, it automatically uploads the data directly into EHR. Law & rules shall be applicable as per India. Facility should be provided to rate doctors by the patients.
3.	The Patient Portal enables caregivers to automatically send secure electronic copies of critical reports like encounter notes and discharge summaries directly to their patients, and to organizations engaged in quality-reporting initiatives.
4.	Through the Portal, patients receive automated notices that their test results are ready to be viewed online.
5.	Once online accounts of patients are created, patients can request to have paper statements replaced with electronic statements. Patients can also make their payments electronically through the Portal as well as he/ she can view the payment history.

1.1.2 Hospital Management Portal

1.1.2.1 Outpatient/Inpatient Management – Doctors' Desk	
#	**Functional Requirements**
1.	Doctors would be able to - View appointment schedule lists and manage patient lists - Perform appointment scheduling of patients - View and update patient demographics if requires - View Patient's Clinical History/ Documents as per requirement - Manage investigation/ problem lists, allergy information, care plans for diagnosis and document the care outcomes -Mange orders from within the EMR module -Perform results review with ability to interface with LIS, RIS & PACS -View patient bill including settled and outstanding values
2.	Doctor's desk shall be customized as per the requirements of the concerned doctors.
3.	Ability to capture diagnosis with codes and status.
4.	Ability to capture SOAP (Subject Objective Assessment & Plan)
5.	Ability to automatically generate and present treatment and discharge summaries
6.	Ability to capture outcomes
7.	Ability to generate, preview and print treatment summaries in OPD and discharge summaries in IPD/A&E settings
8.	Ability to make entries that are classified as being Critical Care Data (CCD) that may be visible to anyone – this information must be deemed to be critical for the survival of the patient and the lack of which may contribute directly towards fatal consequences for the patient
9.	System should allow for entering diagnosis and various doctor orders, treatment, investigation, minor procedures, drugs, referrals etc. whichever applicable
10.	The system should automatically forward the relevant sections of the information/ data form, to concerned departments, for further action on the patient's case as required. e.g. pharmacy store for dispensing medicines, labs for investigations, radiology for X-ray/ ultrasound etc.
11.	Facility to refer to another department in OPD or recommendation to admit patient as inpatient

12.	System should allow tracking of OPD services (investigation, medicines dispensing) and follow up cases as required

1.1.2.2 Prescription Management

#	Functional Requirements
1.	Prescription based auto scheduling of medications
2.	Manual scheduling of medications
3.	Dosage details with instructions
4.	Set Alarm/reminders for medications
5.	Record medication "taken"
6.	Patient Education Content for prescribed medications
7.	Show Active and Past Medications
8.	Medication report - for period of time or for a medication
9.	This module should not only be limited to cover at least the following features but it: • Drug Data Base (DDB) & Drug Information Framework (DIF) based on pharmacopoeia covering Generics and Packaged Drugs. • Integrated with Clinical Workflows • Clinical Decision Support System (CDSS) • Order Set Management • Computerized Provider Order Entry (CPOE) • e-Prescription Platform • Electronic Medication Administration (eMAR) Module • Clinical Documentation compliant to EHR Standards for OP, ER, Day care, IP, OT
10.	System should be complied with Rx Norm standards and as per the rules & replications of Govt. of India.

1.1.2.3 Doctor Portal/ Mobile App

1.	Physician Login
2.	View Appointments for any time period
3.	View OT Schedules
4.	View Patient Demographic Data
5.	View Patient EHR
6.	Inbox for Communication

1.1.3 Nursing Management System

The Nurse Management System assists the nurses in the care provided to patients throughout the hospital. The application will also maintain the basic personal data about nurses including their qualification, training and experience to facilitate resource scheduling and workload planning. The system will also provide for analysis of nursing load patterns.

The various services under the Nursing Management System module are given below:

- **Patient List**
- **Work-lists**
- **Nursing Information**
- **Medication Administration**
- **Patient Assessment & Classification**
- **Order Management for Store & Pharmacy**

1.1.3.1 Nursing In-Patient Application

#	Functional Requirements
1.	Tablet based Application for Point of Care Capture & Review of data
2.	Demographic Details of patients
3.	Patient Allergies & Blood group
4.	Nursing Notes
5.	View Physician Notes (Admission Notes, Reassessment Notes, Progress Notes,)
6.	View Diagnosis (Current, Active & Past)
7.	View Medications Orders (Current, Past & Home Medications)
8.	View IV Orders & Execute
9.	View Lab/ Radiology/ Procedures & Other Orders & Execute
10.	Lab/ Radiology Results
11.	Vitals
12.	Intake/ Output
13.	Ability to enter patient discharge information
14.	To transfer patients. Bed swapping, consumable issues, consumable return, drug issues and returns etc.

1.1.3.2 Nursing Out-Patient Activities

#	Functional Requirements
1.	Tablet based Application
2.	View Appointments based on status for selected period of time (All, Arrived, Consulting, Seen)
3.	Appointment status graphical view
4.	View EHR data of Patient (Summary & Encounter wise view)
5.	Capture Patient Complaints, Allergies, Home Medications, Family History, Lifestyle & Social history
6.	Capture Vitals through relevant medical equipment
7.	Patient tracking facility should be made available at nursing desk and reception counters in hospital.
8.	Nurses & doctors should be provided with the Inpatient & Outpatient applications to manage their workflows over smart phones, tablets etc.

1.1.4 Order Management

The Order Management application addresses order entries, order review and/or validation, interdepartmental communication, order inquiry, and reporting of order entries of the hospital. Any authorized user in the hospital will be able to place treatment orders. Similarly, authorized users will be able to view current order status and results.

- Manage Order Entry
- Medication Orders
- Order Tracking
- Results Reporting
- Charging

1.1.4.1 Management

#	Functional Requirements

1.	The Operation Theatre will be managed as an isolated operational area that has its own scheduling, resource allocation, raising of appropriate alerts (non-availability of appointment slot, resource), ability to enter procedure notes, manage inventory control both for the area as well as during procedures (instruments and gauze counts), etc.
2.	System should provide an interface & link with other departments particularly Laboratory, X-Ray, Pharmacy, Wards, Blood Bank etc. as per the requirement. Alerts should be generated to make sure that OT order sets/work lists are completed.
3.	The various services under the OT Management module are given below: -OT Scheduling - Procedure Order sets -Documentation -Video recording and archiving - Standard surgery-wise list of checkpoints & alerts as per the needs
1.1.4.2 OT Video Recording	
1.	Recording of surgical procedures is very important education tool for medical students/ fraternity
2.	The unique medical cases should be recorded via audio/ video medium and stored in system and reproduced to whoever seeks them via proper privileged based rights.
3.	Videos of the surgeries should be live streamed in real time without any time lag in any place outside the OT either using the LAN or the internet connection. High bandwidth fibre cable laying should be done as per the requirement.
4.	Facility for audio video conference should also be provided.
1.1.4.3 Display information about Operation Theatre	
1.	This system will provide an accurate and minute to minute update on the number of patients inside the OT (that is in each theatre) as well as the progress of surgery for the individual patient
2.	All the relevant information shall be publicly displayed online in a real time manner on the LED TV.
1.1.5 Anaesthesia Management System	
#	**Functional Requirements**
1.	The anaesthesia management system will take care of all the anaesthesia related activities including Pre-Anaesthetic Check-up, Pre-Induction, Induction, Post-Induction and Recovery Stages along with post-surgery order management.
2.	The various services under the Anaesthesia Management System module are given below Services: Pre-Anaesthetic Check-up
3.	Pre-operation Management
4.	Post-operation Management
5.	Data from Anaesthesia machine
1.1.6 Diet & Kitchen Module	
#	**Functional Requirements**
1.	This module will assist the hospital kitchen in providing meals to inpatients as per the instructions of the dietician.
2.	The module facilitates the dietician to prescribe a diet as instructed by the physician to any given patient

3.	The module also allows the maintenance of meal scheduling, customizing meals as per patient needs and recording of individual meal orders.
4.	System should generate alerts to the users/hospital staffs/nurses for the diets to be provided to patients by SMS/ push notification & email as per the requirement.
5.	The inventories & consumables in the kitchen, their indent generation, etc. will also be managed through this module.

1.1.7 ICU, HDU & CCU Management

#	Functional Requirements
1.	Modules for ICU, CCU, HDU etc. should be customized & developed as per the requirement of the hospital.

1.1.8 Pharmacy Management

#	Functional Requirements
1.	The Pharmacy Management System will take care of all drugs-related and other disposable items that have a definite expiry date.
2.	The system will maintain balances and a transaction history for each medication item including cost and suppliers.
3.	Movements will be input manually and automatically from the sales/purchase order processing systems and transfer requests would automatically update stock balances.
4.	Stock would be valued on any of the following basis FIFO, weighted average and LIFO when a stock line is created the standard cost will be input.
5.	An issue note would optionally be printed for all issues. There would be no restriction on the number of stores held on the system. There would be no restriction on the number of bin locations held on the system.
6.	Summarized monthly stock movements would be retained on the system for 5 years and be available for enquiries.
7.	The system would interface with the purchase order processing system so as to produce purchase order recommendations.
8.	A list of available and authorized medications with their suppliers will be maintained.
9.	A list of suppliers/rate contractors will be maintained.
10.	The various services under the Pharmacy Management System module are given Services below: - Management - Demand/ Indenting - Drug Dispensing & Receipts - Process Monitoring - Stock Management - Interfacing
11.	The pharmacy management module needs to be linked with Drug Warehouse & any of its Application.
12.	All the requirements and customization shall be done as per the requirement of the authority.

1.1.8.1 Management

#	Functional Requirements

1.	Pharmacy Management services take care of all system critical information that ensures that all medication required for properly treating a patient are adequately stocked and maintained.
2.	It is important that all drugs, items and articles are constantly at the disposal of the care providers. All pharmacy stores and sub stores shall be part of this module.
3.	System shall have facility to create main stores and sub stores in each facility with integration of all the stores. Following are the designated sub-stores, but not limited to: - OPD Pharmacy -Emergency Department -Injection and Immunization Room -OT -Wards
4.	System shall maintain a master list of suppliers with unit cost of each item.
5.	System to facilitate creation of standard and unique codes for department and locations
6.	The system should allow the Store In-Charge to upload the scanned copies of required document like bills, invoices, etc. and fills other details in the system.
7.	The system should have the ability to maintain Location master data.
8.	Standard list of the drugs and medical supplies used in the store should be maintained.
9.	Capturing unique Item Description and code in the Inventory Master File.
10.	Capturing associated Unit of Measurement in the Inventory Master File.
11.	Capturing Lead Times in the Inventory Master File.
12.	Facility to define Item Codes under an item group.
13.	Facility to generate Store ledger with the following details for each item: a. Opening balance (Quantity and value) b. Receipts and issues c. Closing balance (Quantity and value)
14.	Should be able to enter supplies needed patient -wise by entering/ selecting: Name of item, Quantity.
15.	The system should be able check the availability and quantity of items / drugs / articles / tools etc. at all sub-stores and main store.
16.	Stock would be classified and maintained on any and all of the following categories like sub store wise, VED, ABC, Expiry date of medicine, disease wise, FSN and high risk medication, High Cost.
17.	The system will facilitate retrieving details of available drugs (batch number, expiry date, location) in the pharmacy / drug store & reserve drugs for the indent based on the item code and quantity mentioned in the approved indent
18.	A list of available and authorized medications with their source (warehouse or local purchase) will be maintained and auto updated from existing software.
19.	Monitoring and Tracking of Supplies to Hospital units, Management of materials, Management of suppliers/drugs/items/equipment.
20.	To provide alerts to the officials concerned for tracking their use in order to enable effective monitoring and avoid any pilferages.

21.	The system will support planning methodologies; re-order point, safety point, lot sizing, lead times, min/max levels etc.
22.	Shall have facility to transfer and record material from one location store to another.
23.	Medicines/articles that are consumed as per prescription/generated and daily expense register (prescription wise consumption) should be generated by the system as per information entered by respective Users.
24.	The items which are damaged should also be entered into the system to adjust the stock of that only after proper approvals on the system by the authorized person.
25.	The system should provide facility so that outgoing medicines and prescriptions will be automatically deducted from its stock list.
26.	The system should provide facility so that ; For each item-store combination, the minimum, maximum and re-order quantities will be maintained depending on the policies and procedures adopted for replenishment of stock at the sub-stores.
27.	To provide alerts to the officials concerned for tracking their use in order to enable effective monitoring and avoid any pilferages.
28.	The system should maintain data for any Recall of Drug due to any reaction reported, and track the entire batch of medicines.
29.	The system will generate a list of near-expiry items that are due to expire 30 days or as defined from the date and display as an alert to the user.
30.	The system should keep an account of all the drugs which are near expiry or have expired so that period they may be returned back to the Central Drug Store to be returned back to the vendor.

1.1.8.2 Demand, Indenting, receipt of Stores

#	Functional Requirements
1.	Each of the stores should have the capacity of raising an indent based on demand forecast/ previous consumption at fixed time interval through the store module as well as auto indent based on minimum reorder levels and availability in main store.
2.	The system should have provision to track auto indents as well as online requests from various departments like OPD, IPD, Emergency, Labor room, OT, Pharmacy, etc. The system should track all requests through a separate unique store ID.
3.	The demand generated should be automatically consolidated by the system for the Store In-charge.
4.	The system should be able to shortlist the items to be purchased at hospital level and items to be indented from warehouse.
5.	Should be able to print the indent sheets according to prescribed format.
6.	The system should provide facility so that allowing tracking of the indent throughout the creation and approval cycle using the unique indent number.
7.	The system will have the ability to display the alert for the indent approving authority on receipt of indent approval requests in the system.
8.	The system will have the ability to capture the approval of the Indents & transmit the approved indent details to the stores.
9.	If the medicine is not available with the approving authority the system would generate Non Availability Certificate automatically to initiate local purchase.
10.	According to approved indent a dispatch note will be generated in a prescribed format and will be sent by the system to indenting authority.
11.	Once the supplies are received, digital stock register is updated automatically. The system should maintain a re-defined checklist for the inspection of stock and capture the status of the inspection for each aspect / item.

12.	A barcode should be generated through the system and attached to the stock for further identification and tracking within the hospital stores. In case the bar code is already there the system should have the provision to read the bar code.
13.	The system will have the ability to record the details of drugs received against the approved indent including the following: Date of Receipt, Drug Name, Drug Quantities, Batch Number, Expiry Date.
14.	The system will have the ability to validate the receipt against the Indent & Dispatch note.
15.	The system will have the ability to generate Receipt Report in which item details like quantity demanded, Expiry date, Batch number, quantity received, quantity accepted, quantity rejected etc. are included.
16.	The system should allow entry of drugs procured locally and maintain complete inventory of list of items/articles.
1.1.8.3 Reports & Analysis	
#	**Functional Requirements**
1.	Generate inventory reports as per requirement of user.
2.	Store wise periodic analysis and demand projection.
3.	Inquiry & Reporting for Inventory Status (by item-code, type, etc.).
4.	List of Indent with status.
5.	List of vendors with unit cost of item.
6.	Location-wise, specialty-wise, disease-wise and month-wise consumption reporting.
7.	Comparative analysis of location-wise inventory.
8.	The system will have the ability to maintain detailed audit trails for the transactions carried out in the system for issuing the drugs including date & time and details of user conducting the transaction in the system.
9.	Inquiry & Reporting for Slow Moving and Obsolete Inventory.
10.	Maintains all records of the stock in store/warehouse. ▪ Delivery of medicines to the patients at their residences. ▪ Records of issue & consumption of drugs /medicines on daily/ weekly/ monthly/ yearly basis. ▪ Records of all the generic as well as branded medicines, their alternatives & their rates. ▪ Alerts for the expiry of medicines or almost expiring drugs. ▪ Automatic dispensing of medicines (e-prescription/others).
1.1.9 Diagnostic Investigation Services	
1.	The investigation services take care of all system critical information related to investigations that has a patient context. Facility for setting up various labs and their associated tests as per requirements
2.	It ensures that proper care is delivered to the right patient by the right people after proper evaluation and assessment of the patient's condition that can only be ascertained through investigations carried out in specialized laboratories and units and reporting them to the care provider to as high degree of accuracy as is possible under the current circumstances.
3.	**Test/ Investigation Setup:** -Different types of specimens and their details shall be configured and associated with the tests. -Rates configuration for different types of tests as per patient category -Facility for use of bar coding on sample at the time collection and its use in tracking test result of that sample -ability to accept orders from OPD, Ward, Emergency etc.

	-Facility to upload laboratory finding images along while entering test result for particular patient, where required. -Facility to integrate DICOM-enabled machines related to radiology, cardiology, imaging and radiotherapy device(X-ray, CT, MRI, ultrasound etc.)
1.1.9.1 LIMS (Laboratory Information & Management System)	
1.	The Laboratory Information management systems module should be versatile and feature rich LIMS built on the latest technologies. It must be a user-friendly system providing smooth running of various departments of the LAB performing specimen transfer, storage, request and processing events and documenting real-time history of specimen with built-in security features for easy access to the authorized users.
2.	It should provide special features to enable the user to conveniently view, share, analyze and communicate information across the board between various care providers. It provides a vide variety of reports for healthcare professionals. It will also provide various MIS reports, surveillance reports etc. to enhance the quality of care provided to the patient.
1.1.9.2 Pathology	
1.	Separate and detailed pathology module with sections as follows -Microbiology -Biochemistry -Haematology -Serology
2.	Serving the needs of the Inpatients, Outpatients, Emergency Departments and Operation Theatres.
3.	All observations will use LOINC (Logical Observations Identifier Names and Codes) codes wherever applicable. All diagnosis will be coded using ICD10, when the former is not found to be satisfactorily able to address the correct diagnosis.
4.	The various services under the Pathology Information System module are given below: Services - Barcode based system at all outdoor & indoor sample collection sites - for blood/urine/body fluid samples - tocode for information related to patient id & tests prescribed) - Ordering - Collection Lists (Internal, external, referred) - Specimen Registration - Work lists - Results Entry - Results Verification - Results Reporting - Charging - Quality Control & Calibration management
#	**LIMS (Laboratory Information & Management System)-Functional Requirements**
1.	The system should have provision to track requests from various departments like OPD, IPD, Emergency, OT etc. The system should also have provision to track samples from outside Hospital as well, sent for testing. The system should track all internal and external test requests through a separate unique test ID.
2.	The system should have defined list of Lab tests under various categories, available for selections by the concerned operator / Nurse / doctor, through user friendly select options.

3.	The system should generate the invoice automatically after selection of the required tests prescribed for a Patient. The invoice / receipt should contain the following information, but not limited to: a. Bar Code (generated as per Unique Patient ID) b. Test ID c. Payment Information {in case of exempted patients, the payment value will be null d. Date and Time Stamp e. Token Number f. Any other relevant information, as applicable
4.	The system should have personalized dashboard with queue management of all the requests made through the system, including provision to define priority.
5.	The system should have separate processes / workflow defined for test labs. The system generated Token Number will be provided to the Patient for providing the samples at sample collection counter, after required payment is done, if any. Also the doctors will have the facility to define the Emergency requests, which will be given priority in sequence.
6.	The display systems installed within the Hospital premises should display the Token number and the sequence for all Patients to see. On selections of the Patient record / Lab request by the Lab in-charge / technician, the system should display his / her token number on the display unit, and at least next 2 in sequence.
7.	The system should have the provision to scan the Patient unique ID bar code and the Sample ID bar codes, and link it with the Test ID generated for the Patient.
8.	The system should track the status of the samples sent to Lab from sample collection counter.
9.	The system should match the number of sample IDs generated and numbers of samples collected, and send intimations accordingly to the Phlebotomy counter operator and Lab in charge.
10.	The system should allow Lab technician to accept the samples sent for testing. The system should have provision to highlight the discrepancy if any.
11.	The system should capture the test results directly from the testing equipment, if the facility is available, or provide an option for the Lab technician to enter the test results in a pre-defined format. The system should provide a mechanism of forwarding the test results to the laboratory doctor to authenticate each and every test result, before it to become the final result and before it can be printed or distributed online.
12.	The system should track the dispatch status of Lab test reports from the “Report Dispatch Counter”, when the Patient / relative collect the required reports.
13.	The system should have provision to track the “Panic” values. As soon as the test results are finalized, the system should automatically determine if the test results are within a specified pre-defined range.
14.	The system should send alerts to the concerned Hospital staff / Nurse / Doctor, and display the test results on their respective dashboards in all such cases. This provision should be available for all cases the Token number and the sequence for all Patients to see. On selections of the Patient record / Lab request by the Lab in-charge / technician, the system should display his / her token number on the display unit, and at least next 2 in sequence.
15.	In out-patient cases, it is proposed that the follow-up calls from the Help desk may request the Patients to visit the OPD, if the test results depict “Panic” values or for collection of reports.
16.	The system should have laboratory inter linkages with store for inventory and stock management of the reagents used for various tests and should have provision for auto indenting, if the supplied goes below a specified level.
17.	There should be provision for raising e-indent for bulk requirements of reagents by the concerned Lab technician.

18.	-Various laboratory data generation for NMC assessment as well as research - Instrument maintenance management and log book - Lab Document management The lab document management functionality should be customized as per requirement of SMIMER, Maskati hospitals & health centres. A dashboard should be made available to the user for tracking the status of documents, reports, files their approvals, final approvals, date & time of approval and final results along with the color codes of severity of reports and priority of the documents.

1.1.9.3 Radiology Information System (RIS):

The Radiology system will cater to all the requirements of the Radiology Department: it provides for scheduling of appointments for examinations, examination registration, results reporting, entry of post examination information, and film tracking.

The various services under the Radio-Diagnostic Information System module are given below:

- Radio-diagnostic Setup
- Appointments
- Investigations
- Results Reporting
- Post-investigation
- Management
- Film Tracking
- Charging
- Queries & Reports

#	**Functional Requirements**
1.	The system should have provision to track requests from various departments like OPD, IPD, Emergency, OT, etc. The system should also have provision to track investigation requests from outside Hospital as well. The system should track all internal and external test requests through a separate unique Radiology ID.
2.	The system should have defined list of Radiology tests under various categories, available for selections by the concerned operator / Nurse / doctor, through user friendly select options.
3.	The system should generate the invoice automatically after selection of the required tests prescribed for a Patient. The invoice / receipt should contain the following information, but not limited to: a. Bar Code (generated as per Unique Patient ID) b. Test ID c. Payment Information {in case of exempted patients, the payment value will be null/zero – (0)} d. Date and Time Stamp e. Token Number f. Any other relevant information, as applicable
4.	The system should have personalized dashboard with queue management of all the requests made through the system, including provision to define priority.
5.	The system should allow respective Doctors advising Radiology investigations / Nurse / operator, to see the vacancy / sequence at Radiology Department and opt for a specific schedule, as required.
6.	The system generated Token Number will be provided to the Patient undergoing Radiology tests, after required payment is done. Also the doctors will have the facility to define the Emergency requests, which will be given priority in sequence.

7.	The display systems installed within the Hospital premises should display the Token number and the sequence for all Patients to see. On selections of the Patient record / Radiology request by the Radiology technician, the system should display his / her token number on the display unit, and at least next 2 in sequence.
8.	The system should have the provision to scan the Patient unique ID bar code and the Test IDs bar codes, and link them with the Patient digital record.
9.	The system should track the status of the Radiology tests requested and Radiology tests conducted for each Patient.
10.	The system should match the number of Radiology tests requested and number of Radiology tests conducted, and send intimations accordingly to the concerned administrators and Radiology in-charge / technician.
11.	The system should allow Radiology technician to accept the Patient sent for Radiology testing. The system should have provision to highlight the discrepancy in radiology test conducted and permit a re-do.
12.	The system should capture the test results directly from the Radiology equipment, if the facility is available and provide an option for the Radiologist to enter the investigation results / summary in a pre-defined format, with user friendly select features to the extent possible.
13.	In case of OPD Patients, the system should have a provision to display the finalized reports and generate an SMS alerts to Patients mobile number as soon the Radiology test reports are submitted and ready for dispatch. In case of IPD, Emergency, OT, etc. the system should have provision to display the finalized reports on the respective dashboards of the doctors / specialists and send required intimations to the concerned staff.
14.	The system should have the provision to track panic results as soon as the report is finalized the system should send alerts to the concerned staff/ nurse/ doctor and display the test results on their respective dash boards in all such cases.
15.	The system should track the dispatch status of Radiology test reports from the "Report Dispatch Counter", when the Patient / relative collect the required reports /films.
16.	In out-patient cases, it is proposed that the follow-up calls from the Help desk may request the Patients to visit the OPD, if the test results depict "Panic" values or collection of reports. This feature may be implemented at later phases of the project implementation.
17.	The system should have Radiology inter linkages with store for inventory and stock management used for various tests and should have provision for alerts, if the supplied goes below a specified level. There should be provision for raising e-indent for bulk requirements of films / articles by the concerned Radiology technician.
18.	The system should have integration capability for Picture Archiving & Communication Systems (PACS), for SMC Hospitals & Health Centres.
19.	The system will be able to seamlessly handle inbound and outbound HL7 messages from any system that has similar capabilities.
20.	The system should be Latest DICOM compliant.
21.	The system should provide facility so that the application will be web-enabled.
22.	The system should also allow for setting up a policy for automatic transfer and deletion of digital images from PACS.
23.	The application should have streaming technology for facilitating faster viewing of the images over the net (for PACS).

1.1.10 Blood Bank Management System

#	Functional Requirements
1.	The Blood Bank Management System module will cater for the management of all donor records, bloodstock, laboratory, inventory, and patient-related operations for Blood Bank.

2.	The system would interface with the Inventory Control, Patient Billing, Order Management, and Nursing Information System applications to update the consumption details directly.
3.	The various services under the Blood Bank Management System module are given below: Services - Donor Management - Blood Stock Management - Laboratory Operations - Charging - Local Inventory Management

1.1.10.1 Electronic Blood Request

#	Functional Requirements
1.	This is an electronic system through which requisition for blood will become a simpler and easier process as only one form needs to be filled electronically.
2.	Demographic details of patients will be automatically updated by just entering the Patient Registration No.
3.	Lab details and the components requirement will then be sent to the blood bank. All the requisitions made from any patient till date will be easily obtained through this system.

1.1.10.2 Blood Bank Management System Module

#	Functional Requirements
1.	The system should display all the relevant information related to blood donation as well as requisitions / availability through various channels like Web Portal, Help Desk, Display units etc.
2.	Patients should be able to check blood availability online.
3.	The system should allow the operator to search for existing registration record based on search parameters, as defined in the “Search” component.
4.	The system should display the available Donor registration information already existing in the database when any of the parameters matches, during the registration of the Donor. If there is one or multiple records displayed, the operator needs to select any of the existing record, in order to avoid re-registration (if the Donor details being entered are same as the ones existing in the database) or else select the reason for not selecting any displayed record and going ahead with the new registration.
5.	The system should allow the Donors to get registered. The system should allow standardization in recording Donor information. The registration receipt / donor card should contain the following information, but not limited to: a. Bar Code (generated as per Unique ID) b. Unique ID (having State, District, Year, and random unique system generated number) c. Date and Time Stamp d. Any other relevant information, as applicable
6.	The system should generate the Donor Card in a pre-defined format, with the above-mentioned details.
7.	The system should allow the doctor / operator / Nurse to enter the vitals / general health details.
8.	The system should capture the number of units donated by the donor. It is proposed that the system should have pre-defined criteria for the donor to donate blood at equal to or greater than specific time frame / intervals only, and the system should track the frequency and period of blood donation by each donor.

9.	The system should have personalized dashboard for Blood Bank having all information about donors, blood units available in different categories and requisitions from various departments.
10.	The system should also have provision to capture the blood units collected through replacement units, along with all other related information about the replacement units. The digital stock information should be automatically updated by the system after the details are entered by the concerned User.
11.	The system should have pre-defined list of cell and serum grouping, sample blood tests, which should be selected by the concerned operator / Blood Bank in-charge through user friendly select options.
12.	The system should generate the bar-coded stickers to be attached to the Blood bags, having following details, but not limited to: a. Blood unit ID b. Blood related details like group etc. c. Type (Blood, Platelets, and Serum etc.) d. Barcode for easy identification. e. Expiry date
13.	The system should record the details of all discarded blood units. In case the blood is discarded after conducting the tests on the blood collected; the system should send an intimation / SMS to the registered donor about the same.
14.	The system should have provision to suggest the near expiry blood /components to be issued in case requisitions for the same are received through the system.
15.	The system should have provision to track requests from various departments like IPD, Emergency, OT, etc. The system should also have provision to track Blood requisitions from outside Hospital as well. The system should track all internal and external Blood requisitions through a separate unique Blood requisition ID.
16.	The system should have option of marking the requisitions for blood units as “Emergency”, if they are required urgently.
17.	A bar-coded tag should be attached to the sample container for easy tracking and the system should capture the blood sample details from the Patient for whom the requisition is made.
18.	The system should cross match details of the blood sample and the blood unit available in blood bank. In case matching blood is found, the system should display the units available. The system should allow the Blood Bank technician to update the status of the requisition and issue required units of blood.
19.	In case of any reactions / adverse effects on the Patients‟ health, after giving blood, the same should be returned to Blood Bank and the system should capture the details and mark it for further analysis. Also the system should have provision to flag and even allow blacklisting of a particular donor in case the blood is found to be infected with disease or reactive.
20.	In case the matching unit is not found, the requisition should be denied and the alert should be sent to relative / patient / department. The concerned doctor should get the alert about the unavailability of the required blood unit. If the digital database is integrated, other options are suggested by the system based on the information available. If there is no digital database, the information is provided by searching manual records, if any and status updated in the system.
21.	The Fees collected from the Patient / relative is returned in this case and status should be updated in the system.
22.	The system should have the capability to integrate with blood banks of public and private hospitals for availability check, in case of emergency and disease outbreak and planning purposes.

1.2 Administrative & Other Services

System should have the module for the administrative functionalities of Hospital, UHC & CHC. This module is expected to provide a framework for the employees to manage their routine administrative and personal activities with ease so that they can provide core support to the healthcare services in backend.

1.2.1 Accounting and Billing

#	Functional Requirements
1.	This module is to be customized as per the requirements of Accounts and billing department of SMC Hospitals & Health Centres.
2.	The financial services take care of all system critical money-related information and ensure that the care provider is continuously maintained in a financially secure state. It permits the organization to take care of its current financial needs while being able to plan for future plan in order to provide better care on sustained basis.
3.	This module also to be covered the insurance requirements for private ward patients.
4.	System Should manage the billing, consolidation and export of financial data across various departments within hospital, to an external financial management system.
5.	The module may integrate with the existing accounting packages to achieve the functionality requirements.
6.	The payment details as captured in the system should be collated automatically and forwarded to the Accounts department.
7.	The payment due from the Patients should be determined by the system automatically, based on pre-defined rules and parameters. The system should be able to check for possible exemption from payment of any fees by the Patient by searching the Patient category based on Registration details.

1.2.1.1 Patient Billing

#	Functional Requirements
1.	The Patient Billing System provides the hospital with a comprehensive facility to track all charges for a patient from the point of registration to the point of Discharge / completion of a visit.
2.	The module is largely parameter-oriented to make it more flexible to suit the hospital billing requirements.
3.	The billing process is flexible to enable inpatients billing to take place at pre-defined periods or at end of the episode, while for outpatients it can take place at each service point (either at the point the order is placed or at the point it is completed), or at the end of the visit
4.	This application is fully integrated or interfaced real-time with other patient-care modules so that billing transactions can be automatically posted to the patient's account from the laboratory, radiology, operation theatres, pharmacy, wards/clinics and so on. Patient Billing will be integrated with Accounts Receivable.
5.	This module needs to customize based on the pricing policy and procedures of the hospital.
6.	**Accounts and Billing** Charge Masters OPD Billing OP Services Billing Emergency Room Billing Day care Billing IP Billing Revenue Cycle Management
7.	The various services under the Patient Billing module are given below:

	Services - Bed Charges - Billing - Payments Management - Investigation Charges

1.2.2 Services

1.2.2.1 Central Sterile Supplies Department (CSSD)

#	Functional Requirements
1.	The Central Sterile Supplies Department (CSSD) application manages information pertaining to loans, exchanges of sets of sterile supplies to any department in the hospital that requires sterile supplies.
2.	The CSSD Module provides facilities to enter details of drums, packs and trolleys. Packs can be assembled or broken down into components as required.
3.	The assembly operation will automatically decrease the stock of the components and increase the stock of the pack. Similarly, dismantling the pack will do the reverse.
4.	The system will be linked to the OT Scheduling system to enable required trays to be prepared and sent to the OTs based on the schedule of surgeries
5.	The system will be linked to the Patient Billing System to enable automatic charging based on items used
6.	The service under the CSSD module is given below: Services - Issue Tray Sets - Receive Tray Sets - Quality Control

1.2.2.2 Laundry Department

#	Functional Requirements
1.	Laundry service is responsible for providing an adequate, clean, and constant supply of linen to all users
2.	The basic tasks include sorting, washing, extracting, drying, ironing folding, mending and delivery.
3.	A reliable laundry service is of utmost importance to the hospital. In today's medical care facilities, patients expect linen to be changed daily.
4.	An adequate supply of clean linen is sufficient for the comfort and safety of the patient thus becomes essential.
5.	The term 'hospital linen' includes all textiles used in the hospital including mattresses, pillow covers, blankets, bed sheets, towels, screens, curtains, doctors' coats, theatre cloth and tablecloths.
6.	Cotton is the most preferred and frequently used material. The hospital receives all these materials from different areas like Operation Theatres, wards, outpatient departments and office areas. The OT linen materials need special care since it has to be washed & sterilized carefully.
7.	The system should be able to maintain a Linen data base
8.	The system should maintain the following registers and provide reports for the same • Linen stock register • Daily transaction register for wards • Daily transaction register for other areas

1.2.2.3 House Keeping	
#	**Functional Requirements**
1.	This module shall be customized as per the requirement of the Hospital.
Vehicle/Ambulance Management	
#	**Functional Requirements**
1.	This module shall be customized as per the requirement of the Hospital.
2.	This module should enable the hospital to make arrangements & be ready in advance/parallel for the critical patients that are on the way in an ambulance/any other vehicle so that critical time of the patient is not wasted in doing irrelevant formalities.
3.	Mobile apps: - It should enable see availability and utilization of the ambulances. - It should have provision to provide realtime ambulance information. Necessary integration to be done based on availability of API to fetch GPS live location. - It should have provision to capture patient data with vitals BP, Pulse, Temperature, etc. Treatment provided during transit. - It should have provision to integrate with on board health monitoring devices utilizing their integration interface. – - Mobile App functionality to made be part of common app offered under this RFP for both android and iOS. There should be provision to provide role based access for mobile app.
1.2.2.4 Back Office-Admin Functionality	
#	**Functional Requirements**
1.	It is proposed that all the backend support services including system support services will be part of the core HMIS solution.
2.	It is envisaged that the different support services would be available as user friendly options within the support services module, which would be accessible to different types of Users based on access rights provided through the “Admin” module i.e. Role Based Access Control (RBAC).
1.2.2.5 Machinery and Equipment Management	
#	**Functional Requirements**
1.	This system serves for the purpose of regulation, monitoring the Preventive Maintenance, Break Down and Overhaul works of the Components/Machines and costing thereof.
2.	The system envisages maintenance of equipment in multi-location environment. The Individual Unit History card will be maintained.
1.2.2.6 Planned Preventive Maintenance	
#	**Functional Requirements**
1.	The system will maintain a database of all equipment types by the preventive maintenance required, procedures they perform, spares required by them, services required by them, time duration of service (downtime of equipment during servicing), details of maintenance performed (in-house and through external agency), and services rendered by them.
2.	The various services under the Equipment Management System module are given below: - Maintenance Schedules - Project Management - Work Order Maintenance These modules should be linked with Inventory Management and Finance Management System. These modules should be linked for medical equipment and building equipment and their maintenance.

	Finance module is required to be linked for the repair & replacement expenses to be incurred for equipment maintenance of equipment, the budget allocation, projection, payment, verification etc. The functionality should be customized as per requirement of hospitals & health centres.

1.2.2.7 Equipment Management System Module

#	Functional Requirements
1.	This refers to administration of all the equipment and assets of the hospitals used for Patient Administration Services, Patient Clinical Services and Support Services provided by different departments within the hospitals
2.	This includes equipment visibility, utilization history, maintenance schedule and new requirements. e.g., biomedical equipment, security equipment, IT hardware etc.
3.	System should allow creation of a Machinery and Equipment Store and sub store
4.	The system will have the ability to maintain separate Machinery Equipment (M&E) Asset records.
5.	System shall maintain a Centralized definition of Machinery Equipment categories, description across asset classes etc.
6.	The system will have the ability to generate unique Machinery & Equipment number asset number at the time of asset entry in the system.
7.	The system will have the ability to maintain all relevant information about the M&E including: - Location, M&E description/specification, Supplier ID, Date since in operation/Installation, Life of the asset, Order No., Maintenance schedule of Asset.
8.	The system will have the ability to retrieve details of all M&E for any location in the Structure.
9.	The system will have the ability to consolidate M&E Registers at all healthcare facilities/department locations into M&E Register for the department.
10.	System shall have no restrictions on the number of M&E held.
11.	There should be provision to record initial cost, description and book value of the Asset.
12.	There should be provision to condemn equipment along with reasons and mode of condemnation and update the asset register
13.	The system will have the ability to capture the current utilization and correlate working condition of the equipment based on the history sheet
14.	The system will have the ability to plan, schedule, monitor/track and record maintenance activities.
15.	System shall have provision to maintain and update the asset inventory when the asset is installed at a location or transferred to the other location
16.	The system should allow define and maintain generation of maintenance schedules for preventive maintenance
17.	The system will have the ability to generate maintenance and performance reports i.e. log books, defect lists, asset history, asset list w. r. t. location wise, inspection check list/ schedule, delay & down time, uptime analysis, asset wise consumables and other user defined reports
18.	The system will have the ability to generate and schedule emergency maintenance work order.
19.	The system will help in costing of the maintenance activity.
20.	Should maintain business rules related to Track actual resources (tools, manpower, consumables, spares) utilization against planned / standards.

21.	The system should send an alert to Maintenance cell In-charge who should then investigate the nature of the complaint and should be able update the complaint status in the system.
22.	The system should be able to project the status if the complaint / request are not resolved as per defined timelines / SLAs and send alerts / intimation to the concerned hospital staff about the resolution of the complaint.
23.	Tracking the history sheet of equipment.
24.	Tracking of complaints / requests from various departments and status.
25.	Categorization of complaints/ requests according to AMC / CMC / Warranty etc.
26.	Seamless coordination with AMC / CMC agency and /or other technicians.
27.	Standardized requests for raising and consolidating demand for new Machinery and Equipment.
28.	Life of equipment should be entered with alerts for condemnation.
29.	The system should have a provision to condemnation the equipment. This should be linked with utilization.

1.2.2.8 Procurement

#	**Functional Requirements**
1.	A centralized procurement system is required as per the requirement of users at hospitals & health centres. This module should be customized as per the requirement of the hospital.
2.	Procurement Management should have at least the following functionalities: • Purchase Request & Approvals • Quotation Management & Approvals • Purchase Order & Approvals • Different types of Purchases (Rate Contract, Normal, Consignment etc.) • Goods Receipt Notes (GRN) • Invoices & 3-way Invoice checks prior to payment

1.2.2.9 Inventory Management

#	**Functional Requirements**
1.	Inventory Management primarily deals with the optimization of inventory and the supply chain processes for all non-pharmacy related items.
2.	Inventory Control: The inventory control services take care of all system critical information that ensure that all medication and materials required for properly treating a patient are adequately stocked and maintained.
3.	All equipment and buildings are in a status of pe-Healthetual readiness and all instruments are constantly at the disposal of the care providers in a state that allows no injury to be sustained by the patient during the course of receiving care.
4.	The various services under the Inventory Management System module are given below: - Purchase Order Processing - Stock Control
5.	The inventory should include all the machineries, equipment, resources, items like lights, bulbs, pipes, fans, Air Conditioners, refrigerators, machineries in Gym, kitchen etc. Proper database of all these should be maintained in organized way.
6.	Alerts for non-functioning, maintenance of any of these items should be covered.
7.	Complete Inventory Management Module under back office/E-HEALTH should be provided.
8.	This module should be linked with equipment maintenance, purchase management & finance management system modules.
9.	Inventory Management System should have at least the following functionalities:

	• Manage Items • Manage Stores • Item – Vendor Management • Tax Management • Stock levels (Maximum & Minimum Stock, Safety Stock, Re-Order Level etc) • Stock Taking & Adjustments • Disposal • Inventory Valuation Methods • Inventory Analysis
10.	Assets Management should have at least the following functionalities: Set Up Assets • Procurement Cycles for Assets • Install & bring into Book of Accounts • Maintenance Schedules, AMC & Record Activities • Transfer Assets • Stock Taking & Asset Verification • Depreciation & Residual value • Retire/ Scrap Assets

1.2.2.10 Record Room

#	**Functional Requirements**
1.	It is envisaged that even with the deployment of a complete automated and integrated system, there would be requirements where a physical file is created by either compiling physical records or by taking printouts at certain stages in the entire workflow of a particular process, for record and reference.
2.	It is proposed that an online module should be developed by the Implementation Agency, within the HMIS core application, to track the movement of such files from the desk of the concerned officials to the Medical Room / physical storage area and aid in fast identification as well as retrieval as and when required.
3.	It is also proposed that the module will have a logical methodology to suggest the deposit of physical files in the record / storage room.
4.	The system will keep a record of all the files deposited in the record / storage room and all the files retrieved.
5.	The space for physical storage room will be provided by the hospital administration, however the Implementation Agency is required to create logical storage partitioning, as reflected in the system also.
6.	The identification of the physical files will be through the use of “Barcodes”
7.	The concerned personnel of the record / storage room (manager / in-charge) will receive the request from any of the hospital officials through system alert and as instructed would be required to print the required Barcode based on details entered into the system, and paste it onto the file. It would then be deposited by him / her in the record / storage room and the status would be updated in the system by logging in the system through his / her own credentials.
8.	the retrieval of the physical files maybe through use of Barcode reader which would be connected to the system and it may automatically update the status in the system.
9.	It is a necessary requirement that the entire process should be secure and tracked through Audit Trail functionality in the HMIS core application.

10.	It is of utmost importance that the physical file or data should not be leaked from the storage room for any wrong intentions or for gaining personal benefits.

1.2.2.11 Creation & Storage of new Physical File:

#	Functional Requirements
1.	The concerned official of Hospital/ Record room manager enters the file details in the system.
2.	A system alert is initiated to the Record room manager, in case the concerned official of Hospital is not entering the file details in the system. In this case the Record room manager will enter the file details as per the system notification / alert.
3.	The system displays the storage point.
4.	System generates a new barcode for the file. System updates the status “Bar Code created”.
5.	The concerned person collects the file from the concerned hospital official and pastes the barcode on the file.
6.	The concerned person hands over the file to record room manager who deposits the file in the record / storage room and updates status in the system.
7.	A notification / system alert is sent to the concerned user.

1.2.2.12 Retrieval of Physical File from Storage:

#	Functional Requirements
1.	Hospital official initiates request through system to record room manager with file details.
2.	On receiving the request, the record room manager retrieves the file from record / storage room and scans the barcode using the barcode reader. The system updates the status as “File Retrieved”.
3.	The record room manager sends the file physically to the hospital official.
4.	After receiving the file, the hospital official updates the status in the system as “Delivery Accepted”.
5.	The entire solution as described above should be automated and form a separate functional module in the HMIS core application. The Implementation Agency needs to define the solution with adequate System requirements and User Interface design.

1.3 Business Intelligence (BI) & MIS/Reports

1.3.1 Report Types

#	Functional Requirements
1.	System provides category wise dashboards which helps Management and decision makers to view the functional/ operational status at a glance.
2.	Various categories for MIS are as following: • Business Reports • Statistical Reports • Analytical Reports • Desk Reports • Departmental Reports
3.	Additional requirement as per the requirement of SSDCL shall be covered under customization of application.

1.3.2 MIS Reporting

1.	This will give authorized Users the ability to have a customized view of the entire list of reports they use or wish to use.
2.	Required security will be applied to this module providing a restricted access as per different category of Users within the Hospital.

3.	This module may be further linked to the Personalized Dashboard where the same links to these reports can be displayed in small portlets, so that any User may not always search for their frequently used reports from the Reports module, and they can add it to their own dashboard for ease of use.
4.	All the reports made available need to be controlled through "Admin" module for variable access depending upon the nature and status of the USER. The access control list of the reporting servers needs to be mapped and configured with the admin access control policies.
1.3.3 All / Fixed Reports	
1.	This subsection within the Reports module will have a list of all fixed reports as a hyperlink, which will display the reports as per pre- defined logic / query on the screen, with the option of exporting the report to different formats (PDF, HTML, word, excel or comma separated values), Print and Save the report.
2.	All these may be one click fixed reports or maybe dynamic to allow changes to only certain parameters (like date or period range though dropdown fields) in the pre-defined query and then execute the command to prepare the report.
1.3.4 Custom Reports / Adhoc Reports	
1.	An UI interface will be provided to specific users that will give them view of HMIS database providing the ability to generate custom reports as and when required by selecting any particular field, table or column (as per Database design) by drag and drop feature.
2.	The UI will help form simple queries and execute them by providing the user with ability to select fields / tables from the display and enter certain basic parameters.
3.	The filter criteria and other user-friendly features will also be provided for ease of use.
4.	The screen view of the report will be displayed and then the user will have option of exporting it to different formats as mentioned above.
5.	The key features of this functionality will be as follows: i. This functionality will be permission restricted. Based on the type of rights / permissions granted to any user, they will have ability to view the tables of HMIS database through the User interface. ii. Report Builder tool may be used to implement this functionality so that Users can easily create and execute queries by only entering the basic parameters. However, the decision of SSCDL/SMC in this matter will be final and binding on all parties concerned.
1.3.5 My Reports	
1.	This subsection will have a list of reports as a hyperlink that is frequently used by the internal users, as a kind of personalized section displaying only the preferred reports for any User.
2.	These frequently used reports will be a subset of the All / Fixed reports and would be bookmarked to appear on his / her personalized dashboard also, as customized by the individual Users.
3.	The Reports generated by "Advance Analytics / BI" system shall be made accessible through an interface to be viewed by the designated users.
4.	All the required reports, by each of the Health Administrators / SMC / other stakeholders, must be immediately generated.
5.	The application architecture and the Database design must enable fast retrieval of data, supported by optimized HMIS application interface
1.3.6 Business Intelligence & Dashboard:	
1.	Dashboards incorporating Key Performance Indices (KPIs) should at least the followings: Healthcare Performance – eg. diseases, time for case closure, disposition of cases etc. Hospital Operations - eg. occupancy, bed turns etc. Hospital Accounting – e.g. revenue, margins etc.

	Procurement - Quantity, Value, largest suppliers etc. Inventory - expiry, inventory turns etc. HR - people, vacations, training etc. Maintenance - MTTR, MTBF etc.
2.	BI tools and analytics should be there. Top Management Dashboards, financial dashboards, operations dashboards & clinical dashboards should be provided.

1.3.7 Personalized Dashboard

1.	The dashboard functionality should enable each of the key Hospital staff (Doctors, Anaesthetists, Surgeons, CMO, etc.) to view their virtual personal space and manage their tasks, organize their work etc. based on their roles and responsibilities in the Hospital functions and assigned privileges.
2.	This should be strictly privilege restricted section based on Role Based Access Control (RBAC) mechanism defined through the "Admin" module.
The following features are proposed for the personal Dashboard facility controlled through the "Admin" module for all the key internal users:	
1.	**Quick Links** – Links within the application as well as external links to access any application module or website other than HMIS
2.	**Pending Activities/Tasks** – A list of tasks assigned / to be performed by the concerned User, arranged sequentially, along with number and type of tasks. The standard sequence of completing the tasks for all users should be First in First out (FIFO) sequence. To override the standard sequence, the concerned user will need to specify the reason and enter the details in the system. Audit trail would capture any such change in the system. An additional facility to view other Users tasks, if sufficient rights are provided (especially to senior hospital officials) should also be provided, but strictly controlled through "Admin" module of application. Senior Hospital officials in some cases might want to view the work load and performance efficiency of any junior staff in handling particular set of tasks. They may also want to reassign a certain task to themselves or to other staff members, due to any administrative reason, and get the task completed. All such functionalities and features must be developed by the IA, while designing the automated processes within the HMIS application.
3.	**History of Completed Activities / Tasks**– All the completed activities should be displayed to the concerned User, in case they want to refer it in future. User friendly features like pagination or drill down to see further details of the completed tasks may be provided, as required.
4.	**MIS reports**(Fixed and Adhoc / Customized reports) – which may be bookmarked from the Reporting module of the system
5.	**Red Flags –** notifications, alerts etc. as per pre-defined logic or escalation matrix
Note:	
1.	This is mandatory requirement to be implemented for HMIS.
2.	The above features and functionalities are only indicative and additional features may be included in the Dashboard module by the SSCDL/SMC / actual users / module leaders. It is envisaged that the Dashboard functionality will be different for each functional module / department within a hospital as well as for each individual, catering to their specific needs, and they should be able to dynamically configure their dashboards as required. The Implementation Agency must develop all the required functionalities in this module, as directed by the module leaders, and also by HSCC/SMC from time to time.
3.	Also, the personalized dashboards should be designed Role wise and should be different for each User. Implementation Agency must take inputs from the actual Users to design the structure for module based dashboard. The various functional requirements may also be referred for better understanding of the dashboard requirements.

4.	The Implementation Agency is required to analyze the re-engineering components in order to adequately build this functionality in all the processes of HIS. It is also a mandatory requirement that all the processes should be interlinked to share data / information, and also to 'Admin' module so that access rights and content can be dynamically controlled as and when required by SSCDL/SMC themselves.

1.4 Others

1.4.1 Maintenance Cell

The system should allow the authorized hospital staff to raise a complaint / request through the system in case of any maintenance issues.

The system should send an alert to Maintenance cell In-charge who should then investigate the nature of the complaint and should be able update the complaint status in the system.

1.	The system should automatically check and suggest the Maintenance cell In-charge if the faulty unit / process are covered under AMC/CMC/warranty and if it is in condition of repair as per the "History sheet" maintained by the system.
2.	If the concerned unit / process is covered under AMC / CMC/ warranty and the same is in condition of repair, the Maintenance In-Charge should be able to notify the concerned external Agency for resolving the problems under AMC / CMC/ warranty. In cases where the external agency has the facility to receive an email or SMS request, the system should automaticallygenerate a request / complaint for maintenance / repair as covered under AMC / CMC and send to the external agency. It should also allow to manually generate the request. The details should be updated in the system for further reference and follow- up. If the Maintenance cell In-Charge makes a call to a specified number for the agency, and records the request for maintenance / repair. He should be able to enter the details in the system for further reference and follow-up.
3.	The system should be able to project the status if the compliant / request is not resolved as per defined timelines / SLAs.
4.	If the concerned unit / process are not covered under AMC / CMC/ warranty, the concerned Technician / Vendor are called to rectify the problem and status should be updated in the system.
5.	The system should send alerts / intimation to the concerned hospital staff through the system about the resolution of the compliant / request. The concerned hospital staff verifies the resolution and should record the status as closed / reo-open etc.
6.	The system should be able to track and record the History sheet maintenance, utilization record of machines, data of breakdown time, scheduled alerts regarding annual maintenance/warranty/breakdown/ preventive maintenance checks and CMC. Regulatory requirements/ licenses / permits and compliances should also be recorded and necessary alerts should be generated for renewal / compliance of the same automatically by the system.
7.	AMC/CMC is specific to the Biomedical Equipment, high-end equipment, machineries & other heavy machines like lift, AHU etc. which requires preventive maintenance, routine maintenance & are sensitive to hospital/health centre operations. The maintenance cell module is generic module where AMC/CMC covers all the inventories installed, deployed in the hospital & health centre.

1.4.2 Telemedicine

Basic infrastructure to be provided for setting up Telemedicine unit in the SMC Hospitals & Health Centres as per requirements of SSCDL/SMC.

1.	Ability to have Voice and video connectivity
2.	Ability to provide unique patient number by registration over telecommunication.
3.	Ability to make appointments over telemedicine network from SMCs (remote patient location).
4.	Ability to use the telemedicine network to possibly support tele-education
5.	Ability to attach the medical data transmitted to be part of the patient EHR

6.	Ability for the remote doctor (SMC) to access patients EHR
7.	Ability to transfer the EHR data of the patient upon the request from the telemedicine SMC Telemedicine in the SMC Hospitals & Health Centres will be connected with multiple locations. Arrangements for the same at SMC Hospitals & Health Centres side to be taken into consideration.
8.	The solution should be capable to utilize the inbuild camera/speaker of the system or external camera/speakers attached to the system. It should be possible to utilize the solution using the desktop, laptop, tablet or mobile.
1.4.3 Complaint Management System/Grievances (Patients & Hospital Staff):	
1.	Complaints are inherent in every work environment but in healthcare services, complaints are critical, needing immediate resolution.
2.	System Integrator shall manage it in following manner Complaint forms are activated for Each and Every Department. Authorized User can send the complaint to Admin or Person in Charge where he receives a system generated sms & email for confirmation of complaint submission. He also gets the contact person of the concerned person/officer in charge to whom the problem can be communicated for faster rectification/resolution. Person in charge acknowledges these complaints and prepares and action plan. Person in charge also received the sms & email alerts every time a complaint concerning to him is raised via the system. Once the action is taken acknowledgement send to the said department which in return agrees and the complaint is closed. User provides feedback of the action taken on the mobile app/portal or sms and in case the problem still persists, he should receive a sms & email with contact details of next higher authority concerning that department who can help to resolve the issue quickly.
3.	Complaint management system for real time registration of complaints by the patient & hospital staff via: a. Helpline Number. b. Portal/Mobile Application. c. Helpdesk counters. In case manpower required to attend the complaints & helpline number including IVR etc. are not made available by SMC, the same shall be arranged by SI without any extra cost for the trail run, testing & handholding period of the project duration.
1.4.4 Integration with Hospital's Website / Web-portal	
1.	Hospital's website to be used for projecting the organization worldwide and provides the information about Hospital for various services and facilities.
2.	Website contains information but not limited to the followings: Details about the Hospital infrastructure – Various facilities and services like Emergency, Blood Bank, CT-Scan, MRI, ICU etc. - Departments - Health related news and tips - Course and training program organize by college - Static Web Content - Public Reports / Statistics - Information Components & also information from HMIS - Search Component - Interface Component - Authorization/Approval Component - Other information and functionality to be covered as per the requirement of the hospital

3.	Hospital's website contains all the guidelines issued by Medical Council of India for Hospital's website.
4.	Integrated HMIS Application should be easy to integrate with the website of SMIMER and SMC for required data exchange to give online OPD schedule, department facilities available, available online services. etc.
1.5 Other Requirements:	
1.	At time of Discharge via tablet/ kiosk Hospital/UHC should have customized feedback form based on the services given. Those can be individual portal or linked to the website of hospital. -Patient has to give ratings to the services along with overall experience in remarks. -Reports can be generated based on the ratings which namely are as service name- Unsatisfactory, Satisfactory, Good, Excellent etc.
2.	System should be available on Tablets/Laptops/mobile (with mobile apps).
3.	System should fully comply to Indian Health standards, if any.
4.	System should have clinical decision support system (CDSS).
5.	System should have its application working on mobiles, desktops.
6.	System should have machine learning feature and all the concerned characteristics of artificial Intelligence.
7.	System should allow patients to enter their important credentials/fields regarding their demographic data, symptoms, family, social history & other relevant details concerning the patient.
8.	Troubleshooting, Bug Removal, Fine tuning, Administration, Management, and maintenance of HMIS as per the satisfaction of the designated officials of SMC Hospitals & Health Centres during Implementation Phase, Warranty and guarantee period or during the contract period (whatever the case may be) in such a way that HMIS is maintained in good working condition and to ensure fault free operation of the system for 24 hours on all days including holidays and Sundays.
9.	Updates and upgrades to be provided along with their integration in HMIS during implementation, warranty and AMC period or during contract period (whatever the case may be). After implementation of Updates and upgrades in HMIS, HMIS to be thoroughly tested by the joint team consisting of preventatives of the service provider and representatives from SMC.
10.	Regular onsite training should be provided to respective users of all modules during implementation, guarantee, warranty and AMC period of contract whatever the case may be.
11.	Proposed Integrated HMIS Solution should have easy and customized data backup and retrieval facility. Data retention policy shall be as per healthcare & industry standards. Detailed policy shall be discussed & approved during the implementation.
12.	Interfacing with medical equipment having USB/IR/RJ45/RS232/ Parallel interface etc. should be done. For interfacing purpose, all the hardware & software should be arranged by SI/agency without any additional charges.
13.	Proposed Integrated HMIS Solution should be integrated with Biometric Technology, Smart Card Technology, Barcode technology, Electronic Signatures, Queue Management System, SMS Gateway, Payment Gateway, RFID, IVRS, Hand held devices etc. Required APIs/credentials & devices if available & free for use for e-Health/HMIS system at premises/sites, will be provided. However, in case any device which is required & is not available at the site during the implementation, the same shall be provided by bidder on their own expenses.
14.	From interoperability point of view, HMIS should confirm to the existing standards and policies defined by Government of India. Capability to implement the upgrade in these policies as and when defined should also be there.

15.	HMIS solution should allow the user to navigate freely depending upon the user access permission and role-based access.
16.	HMIS solution should have provision to authenticate user with Biometric devices/ Smart cards etc. User data should be stored in encrypted form in the database. Along with this, authentication on the basis of National id is also required.
17.	HMIS solution should have structure of technical document i.e. SRS (Software Requirement Specifications) related to various modules of HMIS should include all the workflows. DFD's etc. detailing out all functionalities.
18.	Concerned user should be involved at the software design stage.
19.	All sub modules of HMIS should function in integration with each other in such a way that there should be flexibility in various information flows. The software should be able to deal with all practical issues and through flexibility should be built in. And, the ability to transmit information electronically between various modules without duplication of data entry should also be there.
20.	The HMIS should be interfaced with: - SMS interface. - Lab & Medical equipment. - Tablet & Mobile. - Barcode & RFID. - Smart Card. - Stylish pen & note pad. - Wrist bands - Voice Recognition. - Drug Database. - Digital Signature. - Online photography of patients. - Payment Gateway and credit/debit card swipe machines - Third Party Solutions - Biometrics - SMS Gateway & e-mail server/gateway. - Any other device/service/gateway as per the requirement of SMC. All the necessary arrangements and devices to be provided as per the requirements for above interfacing.
21.	The HMIS & PACS applications should be integrated & interfaced with medical equipment for data exchange without any incompatibility.
22.	Smart cards & HMIS & other applications should exchange data either through API sharing or by other means.
23.	Barcode should be able to read, write & printed by HMIS application. HMIS should also read & write data from & into the wrist bands.
24.	Notepad/Clipboard based e-prescription for filling EHR of patients: Consultants/doctors can write the e-prescription along with patient's vitals, symptoms, etc. in a pre-defined form which automatically gets filled against the patient's EHR in the e-Health application.
25.	Drug Database that is to be provided with at least one year license should have following modules: 1. DrugInfo 2. Drug Alert

	3. DrugAllergyAlert 4. DrugHealthAlert 5. DuplicateAlert 6. DrugDoseAlert 7. DrugPregnancyAlert 8. DrugLactationAlert etc. 9. Drug to ICD & SNOMED-CT codes 10. Overdose Alerts 11. Any other as per the requirement.
26.	Alerts for Drug Abusers VIP patients etc. should be generated for persons whose records/data is already available in the system.
1.5.1 Mother & Child	
1.	Automatic generation of the complete schedule & sms/alerts for: i. All medications. ii. All vaccinations.
2.	Follow ups/home visiting for compliance.
3.	Monitor growth of the child as per standard measurements like body weight etc.
4.	Alerts for abnormal measurements.
1.5.2 Referral Creation	
1.	Maintains list of referral sites by specialty, reason for referral, location. Maintains referral history (patient, site and reason/diagnosis). Ability to generate reports by patient, reason/ diagnosis, referral site.
2.	Information about all the facilities & services offered in various hospitals & health centres in Surat for referral.
1.6 Help desk	
1.	Trained staff with customized software to help & guide the patients in OPD regarding the Queue Management & other HMIS system and solve their problems.
2.	Trained staff with customized software to help & guide the patients and their relatives in IPD regarding searching for patient, general condition of patient, issues with billing, laboratory reports etc and solve their problems.
3.	Helping doctors and hospital staff for their HIMS-related issues.

2.Picture Archiving and Communication System (PACS) – Functional Requirements

The Picture Archiving and Communications System (PACS) is intended to setup storage PACS in Hospital Block for performing radiology services within the institution. Anticipated benefits of implementation of the system include the processing, handling, and storage of digital images for improved operational efficiency and enhanced patient care within the hospital.

#	General
1.	The function of the PACS is to acquire, distribute, display and archive imaging data and related information used by the institution. This data will be incorporated into and stored in the PACS at the full contrast and spatial resolution originally obtained by the acquisition devices. Access to the data will be limited to the authorized person.

2.	The system shall be interfaced to HMIS to support display of HMIS diagnostic reports alongside **medical** images on user-friendly, high performance, applications-oriented workstations, and automated image management and distribution. The PACS image storage and management subsystem must allow the rules for image management to be determined by the customer.
3.	Any future upgrade or integration with the other PACS system in the hospital should be possible. System should conform to latest DICOM standards. It should be compatible with all the standard modalities, PACS and imaging entities currently in the hospital and also with those added in the future without any additional cost. The system should allow high speed transmission and viewing of data with adequate security measures against viruses, unauthorized access, and encryption to prevent misuse.
4.	The PACS can be able to store/archive and distribute images and text data from the existing radiographic equipment using either Computed Radiography System (CR) or Digital Radiography System (DR), CT Scan, MRI and Ultrasound machines of the hospital. This should also be able to accommodate additional compatible imaging modalities in the future.
5.	The proposed PACS solution should be compatible with multi-monitor setups (1 Text monitor with 2 or more Diagnostic Medical Grade Monitors connected to a single workstation).
6.	The user should be able to report (type /dictate) and simultaneously interact with the DICOM images using a single mouse. The text and the image area should be in sync to minimize errors in reporting.
7.	The user should be given visual indications when the image and reporting areas are out of sync.
8.	The PACS application should be US FDA& CE certified (not more than 3 years old) and fully scalable PACS system.
9.	The PACS vendor should have experience integrating the quoted solution to an HIS/ RIS. The solution should also have an ability to provide/ share the radiology reports based on parameters.
10.	In addition to the FDA certificate for PACS application, the vendor should offer viewer capable of displaying full fidelity DICOM images. The viewer must allow image access from any device (computer, IPAD, Tab, etc.) using standard browsers e.g. Mozilla, Safari, Internet Explorer, Google Chrome. ZEP should be FDA diagnostic approved.
11.	Quoted VNA solution must also have US FDA 510K certificate and must be mentioned specifically on the Certificate.
12.	The vendor should offer associated hardware and software if required.
13.	The SI shall provide the required license for the RIS/PACS software that will allow unlimited access information by the radiologists and referring physicians either for viewing inside the hospital or for remote access. It also include a 3D License for Radiologist be able to use this feature for reading outside the hospital. The Licenses must be unlimited.
14.	The supplier shall provide all the technical support and training that will be required by the hospital to ensure the smooth and efficient operation of the PACS.
15.	The system must allow viewing of images and reports by other clinical department of the hospital which is remote from the radiology department without additional fees charged by the supplier of PACS/RIS.
16.	System must be fully integrated to an automated CD/DVD publisher for burning patient studies. CD/DVD Publisher must be able to auto print label after burning the studies. Label must include the hospital designed artwork with patient name and study information.

17.	The PACS must be Tele-Radiology-Ready that can work from anywhere. Images can be viewed anywhere via the internet, compatible with multiple platforms (IOS, Android and Microsoft)

2.1 System and Technical Requirements for PACS:

The below mentioned specifications of each component of hardware and software are the minimum required. However, SI may quote an equivalent or advanced version that is commercially available or likely to be commercially available at the time of purchase. Further the compatibility of the quoted items with each other and with the existing system if any is an essential requirement. The SI should take an overall responsibility of both the software and hardware components including all licenses for complete maintenance time of warranty.

It will be the responsibility of the vendor to demonstrate capabilities/functions quoted to the technical evaluation committee onsite if required.

2.1.1 System Architecture

1.	Operating System for all major Servers be **Windows**.
2.	Data Base Management software for the Directory database be **MS-SQL** for implementation.
3.	Operating System for the Diagnostic Display stations be **Windows.**
4.	Operating System for the Clinical Display stations be **Windows**.
5.	Browser used in conjunction with the Web based stations be **MS Internet Explorer/Google Chrome**.
6.	PACS Administrator's software tools be web accessible from any PC as opposed to be installed on a specific PC (Admin Station).
7.	DICOM Conformance statement of the quoted product should be submitted.

2.1.2 Major Requirements

1.	The PACS shall be Fully Web Based with all users accessing all functions through the Internet Browser
2.	If required, the 3D images shall be stored within the original study and both accessible and viewable by all classes of display stations including the web viewer intended for the referring physicians through the LAN.
3.	The bidder shall include a strategy for document scanning and management of the application that can be integrated into the PACS
4.	PACS should support multithreading technology for DICOM communication.
5.	There should be no restriction of License in PACS based on exams per annum
6.	Offered PACS should support high volume reading (lots of cases, large cases, across modalities)
7.	Offered system should have a common GUI for all PACS workplaces
8.	PACS should support and connect unlimited modalities both present & future. No extra license cost will be applicable for any new modality connectivity.
9.	PACS should integrate bidirectionally with HIS (Optional)

2.1.3 System

1.	The proposal shall include a detailed description of the architecture of the system, documenting the system topology and the components of the system.

2.	The system shall meet all performance requirements in this specification with the database storing **5 years'** examinations.
3.	The system shall support system-wide authentication of users through the use of a unique user-ID and password for each user or through an alternative approach with equivalent result.
4.	The bidder shall provide mechanisms to assure the security of all system components to minimize loss of equipment or data due to theft or malicious tampering.
5.	The system should provide same user interface to any user if logged from any computer.
6.	In case of network disconnection, the system shall automatically resume the image display on reconnection.
7.	System shall display the complete image available at that moment in case of network disruption or disconnection.
8.	Should support collaboration features like Video conferencing, Chat and Desktop sharing from the PACS directly to allow users to collaborate with each other.
9.	Any user preferences like keyboard shortcuts, worklist columns once setup by a user should be available if the user logs from any computer.

2.1.4 Main PACS Application/Database

1.	The system shall support the creation of individual users each having individually configurable access-privileges.
2.	The system shall provide an access control mechanism that enables assignment of unique access privileges to individual users to access or alter system resources and data. Examples of such functions are: o Displaying approved reports o Displaying unapproved (unsigned) reports o Displaying images o Printing images o Burning CD/DVD's o Changing the status of images and exams o Changing the display attributes of exams o Approving reports o Creating, modifying, or deleting studies
3.	The database should also support a direct DICOM Query/Retrieve interface, such as could be used for 3rd party workstations or modality retrievals, without noticeable performance degradation.
4.	A system-wide administration function shall be provided to facilitate user profile creation, worklist query creation, system configuration management, data integrity checks and maintenance, and any other administration functions as required by the implementation of the product. A graphical user interface for this function is required. In particular, patient merge and split, as well as exam merge and split features shall be provided.
5.	The system shall implement the following minimum DICOM SOP Classes o DICOM Storage o DICOM Verification o DICOM Print o DICOM Q/R o DICOM Send

2.1.5 Image Archive

1.	The system shall provide sufficient storage capacity to provide direct rapid access to 24months of image production in online archive.
2.	Secondary archive should store 5 years data and must retrieve automatically without manual intervention.
3.	Should be Vendor Neutral Archive (VNA)
4.	The system shall not store any image in the storage system with non-reversible compression. (Lossy compression).
5.	The system shall make exams available for retrieval by workstations.
6.	The storage system shall tolerate the failure of a single disk drive without loss of data.
7.	The storage system shall remain operational in the event of the failure of a single disk drive.
8.	The storage system shall remain operational during the service required to correct a failed disk drive.
9.	The storage system shall support the storage and retrieval of all SOP classes needed to accommodate the present modalities. It shall support Explicit as well as Implicit Value Representation as part of its Syntax and store Explicit VR as its default transfer syntax.
10.	The system shall provide a DICOM interface to which DICOM-compliant external devices may connect. External devices are devices not supplied with the system and include but are not limited to image review workstations, image printers and modalities.
11.	The system shall include a DICOM Query/Retrieve SCP which is based on the Patient and Study Root Information model, and which provides query responses for all studies, series, and images stored in either the Storage System and/or the Archive System.
12.	The system shall include a DICOM Modality Worklist Management SCP.
13.	The system shall include a DICOM Storage Commitment SCP which accepts storage commitment by the modalities.
14.	The bidder shall provide with the proposal the Conformance Statements covering all DICOM services of the system for each individual component.
15.	The external DICOM interface shall support storage of ultrasound images using the Ultrasound Storage SOP Class.
16.	The system shall provide DICOM Support for ultrasound & cath lab cine loops.
17.	Image library function for research and marking interesting cases must be available
18.	Tele radiology module for accessing images and reporting from remote locations should be available

2.1.6 Image Display Workstations

Two categories of Display workstations are required:

- Diagnostic workstation (DWS) primarily located in the radiology department and used for Diagnostic interpretation, and
- Review workstations (RWS) primarily located in radiology department for reviewing purposes.
- Client will require Medical displays for DWS

2.1.7 User Interface

1.	The cursor shall move within and between monitors in a smooth and continuous manner under the control of a mouse or trackball pointing device with the cursor remaining visible during its movement.
2.	The system shall enable all users to create their own profiles accessible from any workstation which specifies at a minimum: • Window width and level presets • Default display protocols • Mouse Settings • Worklist Columns as per choice • Electronic Signature • Auto-refresh time for Worklist • Size of Worklist
3.	The system shall provide the capability to access user specific hanging protocols from each workstation. These hanging protocols should be created through a user friendly GUI which would allow a user to edit the default protocols and/or generate them from scratch. These hanging protocols will be modality and body-part specific.
4.	The system shall provide a mechanism for automatic logoff of a user at a workstation after a configurable period of workstation inactivity.

2.1.8 Clinical Operations

1.	**Patient Registration and Exam Requisition:** With the exception of certain emergency situations, all patients will be registered in the HIS/RIS, and all radiographic exams will be ordered through the RIS. The RIS will automatically inform the PACS of the scheduled exam and the patient's demographic data. In emergency situations where time or other constraints do not allow normal registration and scheduling procedures to be followed, the PACS will accept exams directly without orders and allow the exam data to be rationalized with RIS data when itis available.
2.	**CR and DR Exams:** The existing CR and DR devices will be interfaced to the PACS in such a way that the PACS can provide worklists based on the DICOM Modality Worklist specification, of ordered CR or DR exams from which the technologist may select the current exam and receive the patient demographic data without further data entry. Initial QC will be performed by the technologist using the display connected to the CR plate reader or the Work console of the DR units. Final QC for CR and DR exams will be performed by designated technologists at PACS QA workstations.
3.	**CT, MRI, US:** The PACS may provide modality worklists based on the DICOM Modality Worklist specification to CT, MRI, US, systems, allowing those modalities which support worklists to acquire patient demographic data without technologist input. Exams will be completely acquired at the modality before transmission to the PACS. QC will be performed at the modality. Exams received at the PACS will require no further interaction to be made accessible to users at PACS workstations.
4.	**Stat Exams:** Exams designated as stat in the exam order entry process will be identified in the PACS, and the PACS will provide workstation users with lists of stat exams for rapid access.

5.	**Hardcopy and CD Printing:** PACS film and/or paper printers as well as CD/DVD burners will be accessible only to authorized users.
6.	**Diagnostic Reporting:** Using Digital Dictation or Template based reporting, authorized users will access worklists of unread exams for dictation. Relevant historical exams, along with their reports, will be available for simultaneous display at the time of diagnosis, if so required, having been previously retrieved by an automatic pre-fetching process.
7.	Users will generally monitor worklists based on modalities; however, it will also be possible to find specific patients by Name, Patient ID number or Accession number. During a diagnostic session, a user will be able to select a specific case from the list or automatically move sequentially down the list. In the latter case, after completing the dictation, the PACS will automatically change the status of the current exam to indicate that it has been read, close the exam, and open the next one in the worklist. When displaying an exam or a set of related exams for a diagnostic session, the system will automatically present the images in a reasonable arrangement to speed the process.
8.	Window width and level and image rearrangement will be used frequently. Following Digital Dictation/transcription, the dictated report will be available in the PACS and be accessible for display at the workstations. Subsequent changes to the contents or status of the report will also be available in the PACS. Report approval(sign-off) will be possible on the PACS workstation, in which case the status change will be sent to the RIS/HIS.
9.	**Physician Review:** Authorized users will submit queries to the system database by choosing one of a selection of predefined worklists or views, thereby accessing lists of exams, folders, and patients. Reports for exams will be visible on the workstation. Exams will be selected and displayed in the format in which they were last saved. Window width and level and image rearrangement will be used frequently.
10.	A mechanism shall be provided to permit a user with proper privileges to select images or exams for inclusion into one or more manually-created folders for teaching and research purposes.
11.	It shall provide a mechanism to lock a study to prevent deletion of that study by another user.
12.	It shall provide a mechanism to attach a message from one user to another to every study
13.	The Worklist shall display STAT request by easily identifiable color codes
14.	Should be possible to merge 2 studies together.
15.	Should be possible to split a study into two.
16.	Should support scanning of paper/reports and conversion to DICOM series.
17.	The Worklist shall display the studies which have been locked or printed with some indication.
18.	It should be possible to add a keyword to a study and then search & retrieve a list of studies based on that keyword
19.	It should be possible to search report content for any user definable keyword and get a list of reports with such keywords.

2.1.9 Reports

1.	The workstation shall allow creation of reports based on user selectable templates.
2.	The workstation shall allow pre-configured header/footer in the report.
3.	The report window shall be opened separately, and multiple such windows can be opened.
4.	The report shall allow insertion of key images for printing in user selectable format.

5.	The report shall automatically display the patient demographics from the DICOM header.
6.	The workstation shall allow a user with the proper privileges to display the report for any reported exam without requiring the display of its associated images.
7.	The administrative status of any report (e.g., approved or not approved) shall be indicated when the report is displayed.
8.	The system shall allow creation of multiple templates according to user/modality/organ.
9.	The system shall support capture and attachment of audio file by the radiologist user for reporting.
10.	The system shall allow the transcriptionist to review the audio and transcribe the report and submit it for approval of the radiologist.
11.	The report shall support all standard formatting functions available in MS Word
12.	Report text search engine should be available
13.	PACS should support email/SMS of reports automatically on finalization
14.	PACS should support speech recognition using dragon software

2.1.10 Exam Display, Arrangement, and Image Processing

1.	The workstation shall support the display of multiple images from one exam on one or more monitors.
2.	It shall be possible to choose among multiple image display formats for the monitors of a workstation, for example: 1:1, 2:1, 3:1, 4:1, 6:1, 9:1, 16:1, 20:1 and 24:1
3.	The system shall provide user-selectable, user-definable protocols for display of the images of an exam where the protocols are specific to the type of exam. The intent of this requirement is to allow physicians' preferences for display to be satisfied.
4.	The workstation shall allow a user with the proper privileges to save the information that controls the display of the images of an exam, including window width and level, display sequence, orientation, magnification, pan position, and any annotations.
5.	The workstation shall support the display of multiple exams simultaneously.
6.	The system shall provide for display of multiple exams of a patient. The intent of this requirement is to support the presentation of historical studies along with a new study for diagnosis.
7.	The system shall support rapidly moving to the next or previous exam/series/image in a Worklist using the equivalent of one keystroke.
8.	The workstation shall have the capability to display CT and MRI scout images with the slice position lines overlaid on the image. User shall have the option of displaying all lines or only 1 line specific to one image.
9.	Rapid sequential paging through images of an exam displayable on a single monitor shall be provided.
10.	Should display indication of printed studies.
11.	Should display indication of finalized studies
12.	Should be possible to give keywords to any images and search on those later.
13.	If multiple image series are viewed, it shall be possible to page through the series independently.
14.	The workstation shall support arranging groups of images into a stack (with only the top image visible) and displaying them sequentially forward or backward.
15.	The workstation shall support Thumbnail view providing a quick glance at the series within a study.

16.	The workstation shall support image display based on Acquisition time, Table position and Instance number of CT images.
17.	The workstation shall support linking two or three image stacks and moving through them synchronously so that the same anatomic position or image sequence position is displayed in each stack.
18.	The Workstation shall provide for full screen image display and paging in this full screen window.
19.	A cine function with a user selectable, variable frame rate of at least 1 to 30 frames per second shall be provided.
20.	The cine function shall support user selectable continuous display, reverse playing and true size display of images.
21.	The user shall be able to extract frames from the cine file and save it as individual image.
22.	The workstation shall display all images of a cine file in user selectable display format in one keystroke/mouse click
23.	The workstation shall provide dynamic window width and level through the entire image grayscale dataset.
24.	he window width and level function shall be applicable to a single image, selected images or all images
25.	Window width and level values shall be displayed on the image in real time
26.	Display of the inverse grayscale of any image shall be supported.
27.	The system shall provide unlimited user-configurable window width and level defaults for each user.
28.	Window width and level defaults shall be user-, modality- and organ-specific.
29.	A rapid method to select among default window width and level values shall be provided. The intent of this requirement is to allow the user to jump between, for example, bone windows and soft tissue windows in CT using function keys.
30.	If an image is received from a modality along with a window width and level for viewing, the window width and level parameters shall be used for the initial display on the workstation.
31.	If an image is displayed for which no window width and level is available, the workstation shall select a set of values, which at least make the image visible as a starting point for subsequent manual changes.
32.	Ability to load different studies of different patients, side by side for comparison
33.	System should provide a quick filter function for one click search of studies (Weekly, Daily, Monthly)
34.	Predefined modality-specific display layouts
35.	The workstation shall allow user to convert image/series/study from DICOM to JPEG/BMP format for local storage.
36.	DSA Module is required for Cath lab images.
Image Orientation, Zoom, Pan, and Magnifying Glass	
1.	The workstation shall allow sequential 90 degree clockwise and counter-clockwise rotation of any image as well as flip in the horizontal and vertical axes.
2.	The workstation shall support angular rotation in any degree
3.	It shall be possible to reorient a single image, selected images, or all images in one operation.
4.	The workstation shall be capable of enlarging an image by interpolation of pixel values.

5.	It shall be possible to zoom a single image, selected images, or all images in one operation.
6.	Zoomed images shall be repositionable by panning (roaming) the image within the area allocated for display of the image.
7.	When the actual image size is greater than the monitor resolution or the resolution of the available display window, it shall be possible to display the image in True size.
8.	The workstation shall include a magnifying glass function .
9.	It should be possible to invert, reverse, flip an image or images.

2.1.11 Region of Interest, Distance, and Angle Measurements

1.	The workstation shall compute point-to-point measurements with automatically calibrated, user-selectable scales (micrometres, mm, cm, or inches)
2.	The workstation shall support angle measurement.
3.	The workstation shall support region of interest mean (in image units, e.g., Hounsfield units for CT) and area measurement based on ellipses and rectangular tracing.
4.	The Workstation shall provide Protractor and Cross Product calculation tools
5.	The tools should have user definable color and line settings
6.	The workstation shall allow cropping/masking of image using ellipse or rectangle
7.	The workstation shall allow automatic edge detection in a image
8.	The Workstation shall provide a tool to compute CT Ratio

2.1.12 Image Annotation

1.	The workstation shall provide tools allowing the user to position and orient multiple instances of text and graphics (lines, arrowheads, rectangle, freehand and circles) for image annotation.
2.	The Workstation shall provide tool for automatic labeling of intervertebral space and vertebrae (Spine Labeling).
3.	It shall be possible to edit or delete the annotations if required at a later date.
4.	It shall be possible to print the annotations on film if required.
5.	It shall be possible to change the color, size and font of the annotations and set them as default.

2.1.13 Image Identification

1.	The workstation shall display along with each image at least the following patient data, where appropriate for the image and modality: ○ patient name ○ patient ID ○ patient age ○ patient gender ○ exam date and time ○ image orientation ○ kVp ○ mAs ○ pulse sequence ○ slice position

	○ image or slice number ○ referring physician ○ Institution Name ○ Equipment Model
2.	All the above shall have configurable position for display on any corner of image and user can set it in default position.
3.	The workstation shall allow the user to toggle the display of image identification text on and off.
4.	The workstation shall provide a function to display the entire contents of the DICOM header for a selected image.
2.1.14 Utility Functions	
1.	During the execution of a time-consuming function, the workstation shall indicate that the system is working.
2.	The workstation shall provide a function to allow the user to protect selected images from deletion.
3.	The workstation shall provide a function to allow the user to mark interesting studies and search them.
4.	Should support a user-friendly admin user interface
5.	User creation and different rights assignment should be available
6.	Remote administration of workplaces and PACS servers should be possible
7.	Should be possible to store the client configuration data centrally
8.	IT Dashboard which provides information of major activities like number of users logged in, study status, DICOM Services status should be available
9.	Statistical reports must be possible to be produced based on different criterion like TAT, Study volumes, radiologist TAT, CD Written, Films printed etc
10.	Should be possible to export the MIS reports to MS Excel
11.	System should support roaming user profiles (After logon, the user-specific settings are loaded independently on the workplace).
12.	Settings should be saved in a central repository
13.	Should define user groups according to the departmental structures
14.	User administration possible should be without programming skills
15.	Should provide complete audit trail of activities in the system
2.1.15 Hard Copy Printing	
1.	The workstation shall allow users with the proper privileges to print exams on any DICOM image printer connected to the network.
2.	No installable program must be required for printing films from any station.
3.	Requests for printing shall not compromise workstation operation or performance.
4.	The workstation shall allow the user to choose from multiple standard image formats: 1:1, 2:1,4:1, 6:1, 9:1, 12:1, 16:1, 20:1 and 24:1.
5.	The workstation shall allow the user to create his own customizable non-standard format like 1:3, 2:3, 2:5 etc.

6.	The workstation shall allow the user to arrange the images of the examination within the selected image format.
7.	The workstation shall allow the user to produce multiple copies of the same image with one request, up to a maximum limit specific to the user.
8.	The workstation shall allow the user to cancel a print request which he has previously entered.
9.	Adding Header/Footer and changing the position of the same should be possible.
10.	Hospital Icon should be allowed to be added for printing.
11.	The workstation shall allow user to select different film sizes and film orientation
12.	It shall allow configuration of multiple DICOM printers into the system.
13.	The workstation shall allow the user to print multimodality images on same film.
14.	The system shall have a film composer window with ability to process images before printing.

2.1.16 CD/DVD – reader/burner

1.	Client requires images that are brought in on CD's to be imported into the system and also needs to create CD or DVD's for patients and/or physicians to be taken.
2.	The images shall be imported and added to the permanent PACS database, in case it includes an in-patient and it has to be added to the patient record. Such studies should be flagged and easily identifiable.
3.	System should write images in DICOM format on CD/DVD.
4.	Should support Robotic CD/DVD Writers.
5.	Should include a DICOM viewer on CD/DVD with features like W/L, Zoom, Pan etc.
6.	Should support writing of multiple studies/multiple patients on the same Disc.
7.	System should support writing in multi-session mode.
8.	It should be possible to create individual label templates for CDs/DVDs.
9.	Should be possible to add the report with images on the CD/DVD
10.	Should be possible to write DICOM images to USB sticks.
11.	Should support Blu Ray DVDs.
12.	Should support CD writing of Multiframe DICOM images including their viewing as cine.

3.Queue Management System (QMS) – for SMIMER Hospital Only

This specification covers the 'General Requirements' for the design, supply, performance, inspection, testing and commissioning of Queue management System. Overcrowding of Out-Patient Department (OPDs) and the wards is now a common scenario. This can largely be attributed to the number of the patients receiving care, healthcare professionals providing that care, and often people visiting the patients. Overcrowding may affect patient's symptoms, clinical outcome, and satisfaction levels. It can also affect physician's effectiveness and lead to frustration and sometimes violence. The Problem needs urgent redressal lest public may not rely on the quality of the care provided by the hospitals. The OPD in any hospital is considered as the mirror of the hospitals which reflects the functionality being first point of contact between the patient and the hospital staff. As such, providing best OPD services are one of the primacies

of the hospital. This can, to a great extent, be overcome by using ICT, leading to enhanced productivity and reduction in waiting time. Queue Management system can be deployed in OPD and other services to streamline the patient flow in the hospitals.	
#	**QMS System Requirement**
1.	Queue Management System essentially comprises of Token Dispenser Unit with touch screen, Master Display (LED TVs), Computer desktops (each with a different SMC operator software) installed at the registration counter connected through LAN, Counter Display, and Server with Manager Console server software. Secondary registration at the concerned OPD should be available.
2.	The location of these would, however, depend upon the current OPD setup in a hospital. The visiting patients could be categorized as Red Case, White Case with sub category as General, Ladies, Hospital Staff, Senior Citizens/Handicap.
3.	Complete infrastructure for Queue Management System for all the OPD and doctor/Consultant's room in the entire hospital to be provided and this is to be linked with the Hospital Management Information System through Appointment module. All the customization and integration shall be done in the Application Software of the QMS as per the requirement of the Hospital.
4.	QMS should also have detailed functionality like QMS working model (Centralized, decentralized or Hybrid), Web based/Web enabled, Level of integration with HMIS, functioning logic (i.e. the queue generated is invisible queue, visible queue, virtual queue or otherwise) along with their configurability features. It should also have process to issue through QMS to support Registration & Appointment using HMIS along with Built in Redundancy (Hardware & Software), Upgradability & integration with SMS Gateway. Number of areas to be covered should include MS Office, DMS Office (building wise), Registration Counters, Lab Counters, Consultant Rooms, Waiting area etc.
5.	QMS should also have facility to display Counter Nos. & their respective Queue Nos. along with expected waiting time for each patient, define priority, define patient distribution logic, facilitate queue enquiry.
6.	Queue Management System shall be required for the OPD for waiting of the patient at OPD area and further required in each OPD cubicle for waiting of the doctor/consultant in the hospital. Technology should be latest for all the equipment.
7.	The system helps patients to get their token for the day from within the system and avail the desired/listed facilities.
8.	It has the capabilities to restrict / provide use of relevant features to various group of people. It has flexibility to manage organizational changes with respect to generation to disposal of tokens.
3.1 General Features	
1.	On premises Token Generation
2.	Call Station Configuration Management
3.	Department Association Management
4.	Services Configuration and Management
5.	User Roles and rights Management
6.	Provision to display tokens on single/multi-screen at a time.
7.	Sound notifications/ Alerts

8.	Auto-switching of services
9.	Auto-Calling facility
10.	Multi-Que Support
11.	SMS Alerts and Notification
12.	Integration with external systems

3.1 Technical Requirements

-Intelligent QMS for Patient care Solution

-Patient should get approximate wait time

-Decongest Waiting Area

-Prepare for the consult by using Patient Engagement Solution

-Use the time to learn about patient condition

1.	QMS architecture should be planned in such a way that queues in various departments are managed with single token per patient maintaining its uniqueness per day means till the exit of the patient.
2.	Name and Appointment No. of patients should be displayed on the display units outside consultant rooms and individual registration/reception counters & helpdesk etc.
3.	Queue should be managed for new walk-in patients, patients with new appointments & follow-up patients.
4.	The QMS system covers OPD along with other services including Pharmacy, Laboratory & Radiology services (such as blood test, X-ray, ECG, CT, MRI testing etc.) with same token number assigned during entry/appointment of the patient.
5.	Managing the queues so that queues in different departments are automatically prioritized depending on load on other departments.
6.	Token dispensers should have capability of connecting with LAN as well as Wi-Fi of the SMC Hospitals & Health Centres.
7.	Technology should be latest for all the equipment.

3.1.1 System Architecture

1.	The system shall integrate the entire Queue-Token system at the Hospital Departments through the Hospital's intranet. It shall provide all elements in a suitable configuration to be connected to the Hospital's LAN via the structured cabling. The basic under floor network points shall be provided. However, any additional network point if deem necessary shall be provided by contractor. All additional cabling shall be strictly adhered to Hospital IT identical standards. The system should be scalable to support current and future operations.
2.	All computers and workstations shall be interconnected using 10/100/1000BaseT using TCP/IP configuration. a. All Queuing Display Board shall contain full decoding equipment for their displays and shall be connected to the system using 10/100/1000BaseT using TCP/IP via RJ45 connection to the structured cable system. b. All registration counter and Dr. Room shall be browser-based interface to the server system using the Cat 6 A structured cable network.

3.	All Self-appointment ticketing machines shall be linked to the system using 10/100/1000 BaseT using TCP/IP via RJ45 connection to the structured cable system. At each department, one multimedia display PC shall be designated to display queue information on TV and share hospital info to patient. In addition, the multimedia PC supported by relational database to keep all the records and system configurations for that department. The main advantage of this architecture is that the operation of patient flow shall not be affected by external factors such as network link breakdown with other department or main DB-Server or even shut down of Web- Server / Application Server. All browser calling terminal, Display, Hardware keypad and Ticketing machine (Kiosk) shall be communicating with multimedia PC through its LAN with TCP/IP with Department Hub.
3.1.2 QMS Appointment Application	
1.	It should be designed to allow staff to allocate the necessary patient slot to be opened to public for medical appointment.
2.	It should be designed to pre-alert patients for their up-coming appointments. It should also design to alert patients for their turn to consultation room.
3.	At any time during the Appointment locking-cycle, there should not be any duplication of numbers being appeared at the same time at the same rooms or same appointment being made to 2 different rooms.
4.	A user-friendly web-based interface should be designed for QMS administrator to manage the QMS configuration, Multimedia display and reporting.
5.	The system must allow flexibility of changing system parameters, services type and configuration “as and when” needed.
6.	The system should have load-leveling capability. The load leveling facility should be user-definable such that at any point in time, the System Administrator should be able to distribute the Queue-Token load if a particular service is being over-loaded.
7.	At any time during the Queue-Token-cycle, there should not be any duplication of numbers being appeared at the same time at two different counters.
8.	Security measures should be provided so that only authorized users should have access to the system. Different access levels are also to be provided for different types of users so that each type of user can only have access to the functions and information that are relevant and necessary to perform their roles and responsibilities.
9.	There should be an Online Administrative Panel (Software) for monitoring the Queue-Token-Flow / Workload for the all the departments and also to perform key-changes to the Queue-Token-Token-Flow / Workload from anywhere with different levels of Security rights for accessing the Panel.
10.	The Administrator must be able to monitor the Queue-Token status ONLINE at any location that he / she is located by logging-on to the Administrator’s Panel. The System should allow him / her to make changes to the Queue-Token-flow, open / close Counters, linking of services and any change performed by the Administrator must be Immediately updated to the System real time.
11.	The system should have the capability to detect any system fault or breakdown and Informs the Administrator of the fault. Any malfunction of the system in one Operation section or hardware fault at any of the peripheral equipment should not adversely affect the functioning of the system in other operational sections or lead to a total system failure.

12.	The Queue-Token software should be customized according to the Client's operational requirement.
13.	The system should have the facility to enable real-time monitoring and tracking of Waiting time and service time status.
14.	The system must allow flexibility of enhancing multiple different 3rd Party System Interfaces if required to share DB data and code control.
15.	QMS application must have the capability of multiple-part tickets of different type of Patients. It must allow a Patient to be served at more than one counter or service one after another without taking a new ticket. Able to run 24 hours without shutting down and allow user to set the queue operation session time.
16.	QMS Solution must be integrated with mobile apps solution.
17.	QMS browser calling application should be compatible with Windows, Android, IOS.
18.	QMS system administrator should have the following rights: **User Administration** o Create/Add new user o View user o Delete/ Remove user o Edit user o Assign user to Administrator **QMS Configuration** o Online Monitoring by Medical Service, or Department o View pre-user defined statistical reports o View log report o Search feature for selected records based upon user defined criteria o Customize reports o SMS & Email alerts management **General Administration** o Online Monitoring by Medical Service, or Department o View pre-user defined statistical reports o View log report o Search feature for selected records based upon user defined criteria o Customize reports o SMS & Email alerts management
19.	On premises/ assisted users • Provision to get token by click/ touch on screen to generate appointment token for services offered • Provision to handle for various reason of patient visit o New Patients o Old Patient/ Follow up o Senior Citizen o Patient to collect medical reports

	• Ability to select department to which patient wants to visit • Ability to assign multiple OPD e.g. General OPD, ENT, Plastic Surgery etc.
20.	Token Printing -In case of generated locally (through assisted kiosk/ token dispenser) o Print on thermal printer o Ability to generate bulk tokens o Ability to send SMS/Email to end user
21.	Provision to send SMS when queued number is 3 numbers away, it can be configurable
22.	Calling Token number at reception counter at reception counter o Display token number and token number should be matched o Common displays can be instilled on one or multiple locations.
23.	Provision to record finishing call at reception counter and passing it to dept counter
24.	Provision to call token number at Dept Counter and record finishing call at Dept Counter On Common Display installed at Dept OPD Floor OR/And On Individual Displays installed at every dept.
25.	Provision to get coupon on future date / time Day after <n> days, n can be configurable.
26.	Reports likes Token Issues Report Patient/ category wise Summary, Dept wise Summary Report, Average Waiting Time Report & other statistical report etc.
27.	QMS should have Configurations **Language** o English o Hindi o Provision to Support Local Language **Services** o List with add/ edit/ delete/ disable service o Token Number prefix o Associated Counters o Days of operating **Departments** o List with add/ edit/ delete/ disable Department o Days of operating o Timings o Maximum number of Tokens o Token number prefix **Display** o Show o Provision to add video advertisements and play after <configurable time interval> o Provision to do required settings as follows: • Scrolling text – text box, scrolling speed, background color • Waiting tokens • Text Settings – Color, Font

28.	Integration with third party applications like OPD application, HMIS etc. should be done if as and when required for organizing the patient flow in the Temporary OPD.
29.	Facility in the All-In-One (AIO) PCs should be provided for calling next patient by registration counter operators and consultant rooms along with the calling pads for calling next patient by pressing button/touch pad.

3.1.6 Browser based calling terminal

1.	Patient browser-based calling terminal should be residing in the Dr. Room & registration counter or other rooms as per requirement. It should be interfaced with the ticketing machine and has the ability to issue Queue-Token ticket by services.
2.	Patient browser based calling terminal must have the following standards features and functions: o Activated by keying user identity and password o User friendly menu driven drop down window box o QMS windows displays list of Queue-Token numbers to be served o Able to capture the statistics of the services provided o User friendly menu driven drop down window box o Calling a Queue-Token number sequentially and/or randomly o Calling the next Queue-Token number through scanning the bar-code o Queue-Token number on a Queue-Token ticket o Clearing an incorrectly keyed Queue-Token number when calling Queue-Token number random o Able to show waiting time of current patients and called-time statistics; o Change colour within the Queue-Token numbers to reflect the different state of the Queue-Token o Displaying the number of patients in the Queue-Token waiting to be served o Can transfer Queue-Token numbers between services within the Department; o Able to prompt staff if preset waiting time is exceeded either by pop-up alerts or by using a different colour change o Alerting the counter staff, through audio-visual means, when a patient has waited beyond a stipulated waiting time. The system should have the facility to allow the activation of separate 'alert' timeframe and for these to be reset or changed by the user. o Storing and recalling (either manually or automatically) Queue-Token numbers for which no response has been received. The number of times a Queue-Token number can be stored in memory and automatically recalled later and the store duration should be programmable to cater to different users' requirements; and A. Providing log-on/off function to the Queuing System at specific counters. B. Can change service and attend to patients with different transactions; o The transferred Queue-Token number should be inserted in sequential order (First-In-First-Out) or based on Appointment Time slot.

	○ The same Queue-Token number should be used for the patients through-out his /her transaction until he/she leaves the place or stop the transaction at one particular counter which is the last place of visit. ○ Patients notes or remark can entered into customer details using browser terminal to record patient history. ○ Patient previous appointment and today appointment details should be available in browser terminal
4.Education Management System (EMS)	
4.1	**General Requirements**
	Single integrated platform
	System should be completely compliant with the statutory requirements of control-ling/regulatory bodies such as UGC, AICTE, State/ Central Governments, as well as other statutes
	Be capable of supporting decentralized as well as centralized processing
	Provide interactive validation of data entry by users
	The application must maintain the entire student lifecycle in the College (i.e. multi-year) in a single database instance
	Multi-year access of data with restricted rights
	Audit trail of vital transactions like Exam result entries, Report generation, Student attendance upload and more
	Front end configurable based on rules for any up gradations or policy changes
	Real Time Reporting
	Functional Scope
	Key requirements of educational e-governance for colleges& institutes of higher education encompass departments and process across areas relating to academic, governance, learning support and administration.
	Integration with relevant modules & functionalities that are part of the educational e-governance system.
4.2	**STUDENT REGISTRATION**
	Brief description

	The System should include processes student enrolment with basic data like mobile no., roll no, parents' names/mobile, address etcOR the system should be able to pick up or acquire the required information from the existing student admission / fee management of the college. **Functional Requirements:** 1. Post Admissions
4.3	**STUDENT ATTENDANCE SYSTEM**
	Brief description This System should facilitate the user in managing student attendance across classrooms, facilities and hostel and maintaining course wise attendance records. Provisions should be available to mark student attendance manually Mobile app: Student should be able to mark attendance when sitting inside the respective class only. **Functional Requirements:** 1. Rules for Attendance 2. Student Attendance 3. Student Leave 4. Grace Attendance **5.** Hostel
4.5	**SCHEDULER SYSTEM**
	Brief description This System should facilitate the user in creating programme timetable and Batch timetable. Faculty should be able to plan lessons and track the syllabus progress. Functional Requirements: 1. Timetable Scheduling 2. Lesson planning
4.6	**STUDENT DASHBOARD**
	Brief description Each student enrolled in the College/institute shall access his/her personalized dashboard via unique user ID.
4.7	**STUDENT ANTI-RAGGING PORTAL**
	Brief description This System should facilitate resolution of ragging complaints for students with the provision to submit ragging complaint form, formation of anti-ragging committee, conduct anti ragging committee meetings, anti-ragging rounds and record resolutions. **Functional Requirements:** 1. Ragging complaint form 2. Anti ragging committee creation 3. Anti ragging committee meeting 4. Real Time Reporting **5.** Anti ragging rounds
4.8	**STUDENT HELPDESK**
	Brief description

	This System should facilitate the user for managing student feedback and inquiries. The user should have ready access to important College information such as details of department HoDs and affiliated college Principals, new admission schedule, Lecture schedules, student exam status, list of College holidays etc.
4.9	**ALUMNI MANAGEMENT SYSTEM**
	Brief description This System should maintain the complete alumni databank, track alumni achievements and employment history, receive alumni assistance, arrange for alumni meets etc. **Functional Requirements:** 1. Alumni Registration 2. Alumni Interaction **3.** Real Time Reporting
4.10	**RESEARCH PROJECT MANAGEMENT SYSTEM**
	Brief description This System should allow the users to submit research project proposals. The College should be able to approve, manage and track research projects and related resources and funds allocation, receipt of grants, utilization, budgets etc **Functional Requirements:** 1. Proposal submission 2. Approved Projects 3. Project Closure **4.** Real Time Reporting
4.11	**MESSAGE BOARD SYSTEM (for internal communication)**
	Brief description This System should allow intra-College messaging / mailing system. For all authenticated users of the College, a message board would be allocated.
4.12	**MIS REPORTS, DYNAMIC QUERY SYSTEM & ANALYTICS**
4.13	**DOCUMENT HANDLING SYSTEM**
	Brief description This System shall facilitate the user to enter the tracking and payment details for movement of the DAK letters and Files within and outside to the College. This facility will be operable from the respective department offices. Functional Requirements: 1. Inward Document Handling 2. Outward Document Handling
4.14	**ADMINISTRATION MODULE**
	Brief description This System shall allow the authorized College user to perform advanced activities like managing user access permissions, system configurations, roles
4.15	**STAFF DASHBOARD**
	Brief description

	Each staff member in the College / affiliated college / institute shall access his/her personalized dashboard via smart card / unique user ID. Functional Requirements: 1. Teaching Staff Dashboard 2. Non-Teaching Staff Dashboard
4.16	**HOSTEL ADMINISTRATION**
	Brief description The should be a workflow based system covering all hostel related functionalities pertaining to Hostel, Rooms, Utilities, Facilities, Staff, Menu and Meal Preparations, Hosteller, Medical History, Hostel Application, Facility Usage, Payment Details, Hostel Administration, Discipline and Suggestions within a College. Functional Requirements: 1. Hostel & Rooms Definition 2. Hostel Rules 3. Hostel Facilities 4. Mess & Menu Management 5. Hosteller Management 6. Hostel Administration 7. Real Time Reporting
4.17	**EXAMINATION SYSTEM**
	Brief description This System should facilitate the user for managing examinations for all types of courses – semester, prof and annual / yearly. The System should manage activities relating to examination rules, pre-examination, exam conduction and post examination of College's teaching departments and its affiliated colleges. Functional Requirements: 1. Exam Rules 2. Choice Based Credit System 3. Pre-Examination Activities 4. Pre-Examination: Question Papers 5. Exam Conduction 6. Post Examination 7. Certifiable skills
	Note:- Above modules shall be customized as per the requirement of the client.
4.18	**ADDITIONAL SPECIFIC TERMS AND CONDITION FOR EMS:** 1. The Vendor shall have capacity to provide support On-Line on the Software and Software Training to the college / institute Staff. 2. The Vender shall provide at least 5 Years on Site comprehensive maintenance support. 3. There shall be scope for customisation of the Software as per institute requirement. 4. The Vender shall provide the complete Hardware including servers, storage etc. & Networking required for smooth running of the Software.

4.19	**Completeness of the system**
	In addition to the above, any other functionality to be added & customized as per the requirements of the client. Integration with the other system like Library Management System and HMIS etc. shall be done as per the requirement of the Client.

5. LAN & Wi-Fi

Network Infrastructure - Establishment of Local Area Network (LAN) and Wi-Fi system at SMC Hospitals & Health Centers

Introduction: At its SMC Hospitals & Health Centres, SMC wishes to setup a State-of-the-Art, high performance, fault-tolerant, secure and highly available IT Networking infrastructure and shall utilize the best of products and latest, open standards-based technology, high quality services and workmanship.

5.1 Scope of Work

1.	Solution should be designed in such a manner that it can provide very high speed data throughput thru 10GBPS from Day 1 between Access and Core switch. A 10GB Backbone and 1GB final mile should be the designed configuration for this project. Entire network has been designed on 2 tier Architecture.
2.	Cable (U/FTP Cat 6A & Optical Fibre Cable) based network shall be established in the SMC Hospitals & Health Centres. SMIMER Medical College.
3.	In addition to the cable-based network, secured wireless network shall also be established for the SMIMER other locations as required.
4.	All products of network i.e. Network Switches, Wi-Fi Router, Wireless devices and Firewall shall be offered with 5 years OEM warranty and 24/7 support with response time within 4 hours & same day rectification (replacement of hardware). In case of non-compliance of Network Uptime appropriate Penalty will be Applicable as per SLA and Terms Condition defined in RFP
5.	In SMIMER Hospital Wired and Wireless Local Area Network (LAN) must be established. While in Maskati hospital Wired LAN must be established. Passive Networking work i.e., Cabling, crimping and conduiting to be done in Health Centers. Wi-Fi Routers may be provided for Maskati Hospital and Health Centers as per the requirement of the site.
6.	All types Fiber Patch Cords, Direct Attached Cables, Cat-6 Patch Cables, RJ-45 Connector with Crimping, Fiber Splicing as per on field requirement to Interconnect Switch to Switch, Switch to WI-Fi controller, Switch to Access Point, Switch to Server, Switch to LIU, etc to utilize and connect all active equipment to their full potential must be provided/supplied from day one and additional quantity as per requirement thorough out the contract period/project tenure must be supplied/provided without any additional cost or financial implications to SMC/SSCDL

5.2 The scope of work of the SI for Network Infrastructure development shall also include, but not limited to the following:

1.	The SI shall furnish complete details of acceptance tests proposed to be conducted before handing over the installation to the SMC Hospitals & Health Centres.
2.	Racks for mounting of network equipment including dressing of cables with proper marking in the rack.

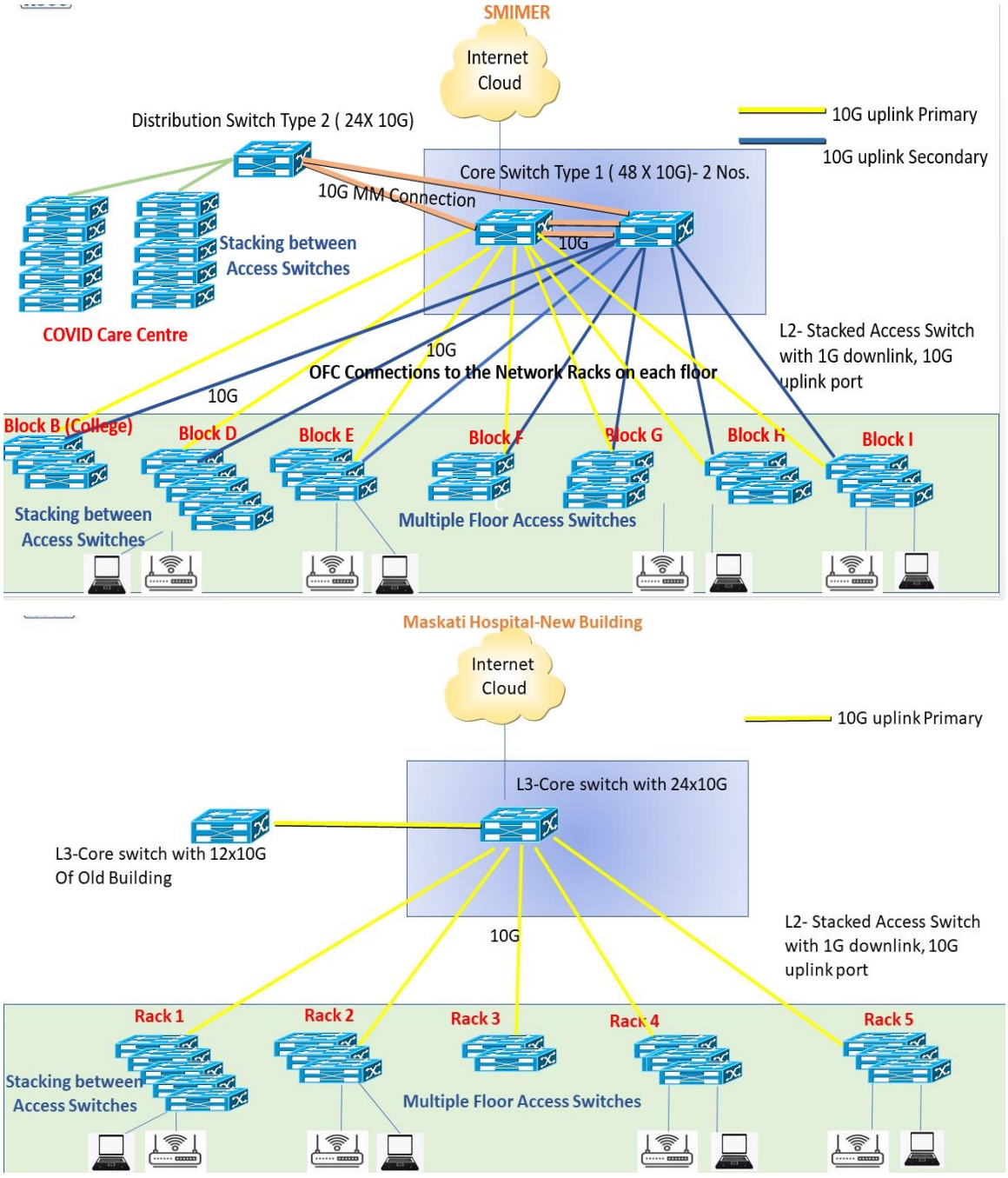
3.	All pipes & cable laying including termination, accessories including HDPE pipes, PVC conduits/channels, supporting structures, clamps, identification tags, ferules etc. required for laying of cables.
4.	SI shall complete the site survey and submit network topology, number of Wireless AP and number of RJ45- I/O Port requirement, length of optical fibre cable as well as copper cable laying with conduiting.
5.	All cable laying including Fibre Optics cables inside and outside the buildings including excavation work required for laying of cables, conduit etc. Laying and installation of the cable should be as per the standard of industry norms.
6.	Supply of all spares required during erection, testing, commissioning, and warranty maintenance.
7.	Minor civil works (if required) such as chipping/ cutting of floors for making grooves, making holes/ opening through walls, ceiling or floors, drilling of holes through steel structures and frames, grouting of frames, hooks on walls/ceiling etc. required for execution of work. After erection, surface shall be made good by plastering/painting to their original shape and finish.
8.	Bidder and OEM both are responsible for Full Configuration, Integration, Implementation and maintenance and technical support of solution/product as per requirement of SSCDL/SMC for RFP contract period and necessary hands on training for Administration & Operational Features for Network Components in this regard is required to be provided without any additional commercial to identified Representatives of SSCDL/SMC.
9.	SI shall provide onsite maintenance support for the complete hardware, software & cabling system of the proposed networking system for period of 5 years. Technically qualified & experienced engineers having good knowledge of Networking on regular basis to be posted at site for the period of 5 years to the SMC. Deputed engineers should have experience in the Networking and should have technical qualification in the relevant field. Site engineer will co-ordinate with the authorized person of the SMC Hospitals & Health Centres at site for all works including installation, commissioning and maintenance. The site engineer deputed from the service provider for maintenance support should attain the breakdown call and make all efforts to rectify faults related to failure of hardware/software/network at site with minimum possible time and maximum up to 24 hours from the time of reporting of fault.
10.	SI shall arrange for posting of required technical staffs during erection, testing and commissioning and maintenance of the system.
11.	Site certification is to be done by the agency for Penta-scanning and certificate to be submitted for the performance warranty of 25 years.
12.	OLTS test is to be done by the agency for FOC connectivity as per the requirement.
13.	No. of Indoor/outdoor wireless units shall be installed to cover all the area of the SMC Hospitals & Health Centres as per the requirements depending on the physical layout and capacity of the wireless units for establishing wireless connectivity.
14.	**Completeness** Any equipment, materials or supplies which may not be specifically mentioned, but are necessary for carrying out the contract work shall be in the scope of the service provider and the system must be complete in all respect.

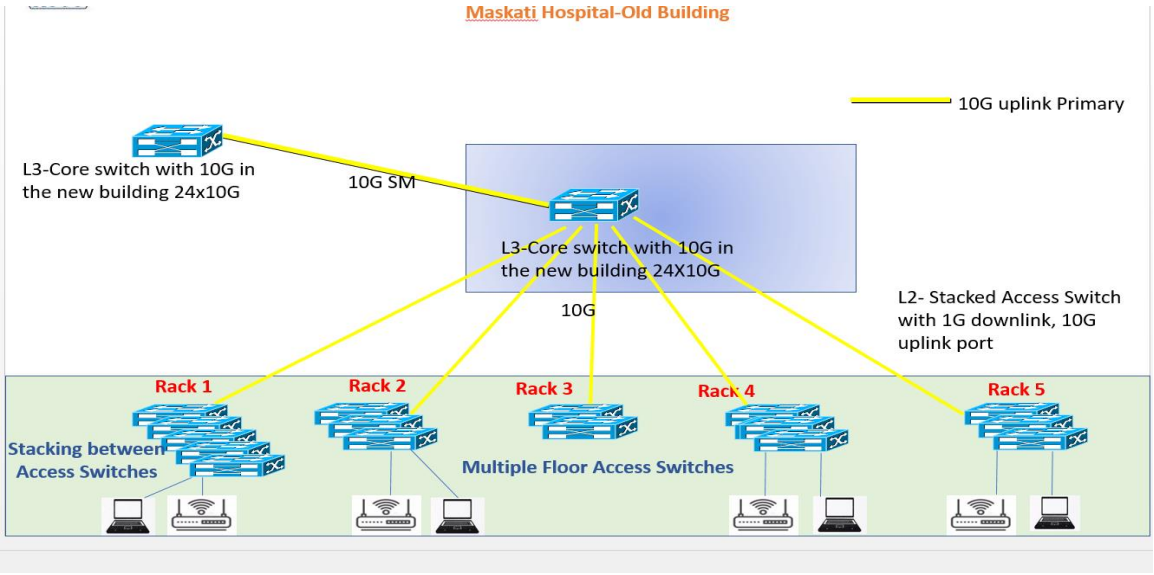
5.3 Terms & Condition for establishment of Local Area Network (LAN) and Wi-Fi System:	
1.	**The prices/charges quoted should also include:** a. Cost of necessary power cables, signal cables, connectors, controllers and necessary device drivers. b. Warranty as specified in Technical Specification section for each item including service and parts/modules. Warranty of particular Item will be start from the date of Completion of Hyper care. c. Delivery & Installation at Various SMC offices located throughout the city or at any other office to be decided by the SSCDL/SMC. d. Transit Insurance, Freight and loading, unloading charges up to SMC's site location. e. Supplying, Installation, Configuration & Integration with existing LAN & WAN of SMC. f. Shifting of Network Equipment like Network Switches, Network Rack from one location to other location on requirement basis during contract period.
2.	**OEM / Implementation Partner Participation Criteria** i. The bidder shall be the manufacturer or the authorized service provider or authorized **service partner** of the hardware quoted. ii. The bidder will be required to submit a manufacturer's authorization form from all the OEMs stating that the bidder in concern would be bidding for their products/solutions and have to provide **"Authorization Letter from OEM"** (as per **Form '1.11'**) on its letter head duly signed by the authorized signatory. iii. Hardware provided must be latest released product from OEM and it must not be under the list end of sale, end of support from OEM till 5 years from date of Delivery/commissioning/activation of services and in any case if subscription/support/hardware parts/model is not available/provided from OEM after few years but before the end of contract period than bidder is required to provide equivalent or higher model released by OEM with all features/subscriptions mentioned till the validity of contract period. iv. Bidders are required to specify only one specific make and model of each item and provide the details in the Technical bid. Providing more than one option shall not be allowed. v. As part of Technical Compliance/validation of the features/specifications, if required, SSCDL/SMC may ask bidder for Demonstrations/Proof of concept (PoC) of the product quoted/proposed with full/All features enabled and as per configuration requirement of SSCSL/SMC. In case bidder fails to provide successful Demonstrations/Proof of concept (PoC) of the product as per requirement of SSCDL/SMC, product proposed/quoted will not be considered for further process of tender.
3.	All goods to be supplied shall be of specified or higher speed/technology/version. The SSCDL/SMC or its representative shall have the right (if it so desires) to test the goods to ascertain their conformity to the specifications. The SSCDL/SMC shall notify to the agency for this purpose & nature.
4.	Licensing – All the licenses required to be delivered along with the Product (Network Hardware & Software) should be in the name of the Surat Municipal Corporation (SMC Hospitals & Health Centres)

5.	SI sole responsible for all the maintenance with OEM Warranty of all the items supplied and installed for the period of 5 years from the date of completion of Hyper care.
6.	If any promotional scheme is launched by the manufacturer at the time of supply of the item, all the benefits of the scheme will be given to the SMC/consignee.
7.	SI is required to provide the Network Implementation Plan & Design Document of the particular site in Hard & Soft Copy to SMC/SSCDL Officials.
8.	A detailed shop drawing, concept drawing, indicating line diagram, route diagram showing details of laying underground, overhead or under wall cables showing details of cable, switches, joint etc. complete in all respect to be submitted to engineer for approval before ordering any items & start of execution work within 15 days of award of work. The design if required will be revised as per direction of engineer before approval.
9.	SI is responsible for all unpacking, assembling, wiring, installation, cabling between equipment and components and connection to power supplies. They will test all Systems operations and perform all the necessary setup, configuration and customization for successful operation of the Network at site.
10.	The Local Area Network (LAN) will be accepted only when authorized person from the SMC Hospitals & Health Centres, SMIMER Medical College/ SSCDL/SMC/HSCC has given satisfactory performance report of the installation.
11.	The goods, if as & when required, will be inspected and tested by SMC / HSCC or their Authorized Representative / Nominated External Inspection Agency (Fee/Charges taken by the External inspection Agency shall be borne by the Bidder) at bidder/OEM's premises for their compliance to the contract specifications. The bidders will provide necessary testing facilities and shall bear cost of in-house testing required, if any. Bidder shall notify the SSCDL/SMC/HSCC through e-mail about readiness of goods for pre-dispatch inspection and SSCDL/SMC/HSCC will notify the bidder about the Authorized Representative/ Nominated External Inspection Agency and the date for testing. The goods would be Accepted/complied only after clearance in the inspection.
12.	SI should provide the standard technical literature (not photocopies) of the entire offered product.
13.	The SI shall supply all the installation material/ accessories/ consumables (e.g. screws, clamps, fasteners, ties anchor, supports, grounding strips, wires, fibre connection kits etc.) necessary for the installation of the systems.
14.	The SI shall be responsible for providing proper "Electrical ground" at all the required points as per the approved IEEE standards for Grounding of Sensitive Electronic Equipment and as per the OEM guidelines.
15.	The SI shall install, wire the UPS power at required locations and provide proper electrical ground for the same before installation of the equipment. Civil works if any required for installation of the system will be the responsibility of the SI.
16.	All the work shall be done in a conscientious manner as per the OEM guidelines and best industry practices. The system shall be subjected to inspection at various stages. The SI shall follow all Safety Regulations and practices.
17.	The SI shall configure quality of service parameters on network switching devices for end-to-end QoS for critical traffic over the network.

18.	SI shall be responsible for integration of security components in the network to ensure a secured network access for users.
19.	SI shall configure network management policies for managing all the network and security devices using network management systems.
20.	SI shall prepare detailed acceptance testing plan (ATP) for each of the components i.e. Network (LAN & Wi-Fi system) and submit the same to SMC Hospitals & Health Centres.
21.	All the functionality, features and configuration shall be documented for all the equipment/components and shall be demonstrated with respect to the documentation prepared.
22.	The SI shall be responsible for obtaining approvals (if any) for any Statutory & Regulatory requirements from any of the authorities.
23.	SI shall use his own sets of tools, tackles, etc. required for erection, testing, commissioning and warranty maintenance of the system.
24.	Compliance for all the Network components (LAN & Wi-Fi) to be submitted along with technical bid as per the format.
25.	Network up time should be continuous throughout the warranty period covering 24x7 without fail and as per the requirement of the hospital.
5.4 Other terms & conditions and requirements:	
1.	The network infrastructure and hardware & system software set up should be able to integrate with various software and system already running at SMC Hospitals & Health Centres.
2.	The system should be capable of handling the HMIS, PACS, QMS and other application as per the requirement of the SMC.
3.	The system should be compatible in all respects with current network infrastructure of SMC Hospitals & Health Centres.
4.	The network set up should be capable of providing high bandwidth internet/network connectivity in all the desktops, laptops, tablets or any other device as per the requirement.
5.	The Wi-Fi should connect with all the devices i.e. desktops, laptops, tablets etc. and offer high bandwidth connectivity.
6.	The system should be capable of deploying all the policies (i.e. Network, Security, etc.) as per the requirement of SMC Hospitals & Health Centres.
7.	The SI shall bear for any damage occurring during supply, installation, testing, commissioning & activation of network components, computer hardware etc. The same has to be rectified by agency at their own cost. In case agency fails to do rectification, the same shall be rectified by SSCDL/HSCC and involved cost will be recovered from the agency.
8.	In case of additional hardware, software or any other work is required for completeness of the system, the same shall be provided by SI without any extra charges.
9.	**Other terms & Conditions for maintenance period:** During the Maintenance period, if SI fails to deliver the services required for maintenance & manpower support at any point of time, the same shall be done through other agency without giving any notice to the SI and the cost involved will be recovered from the SI.

Proposed Network Diagrams:





3.4. DESIGN CONSIDERATION:

SI is responsible to size and propose the IT infrastructure required for smooth functioning of the entire solution as per OEM guidelines and standard industry practice. SI has to supply, install, commission and manage/maintain the IT Infrastructure components such as, Servers, Databases, Storage Solution, Software and other supporting IT components as required at the Data Centre that has been proposed as part of the bid.

The System Integrator has to procure the materials and equipment as required and given as part of the System Integrator's response. However, it should be noted that the System Integrator has to procure all necessary equipment to run the solution as per the requirement of the RFP documents including the SLA. In case, it is identified that certain components are required but not quoted by the Supplier, the SI will procure and commission the same without any financial implications. The System Integrator shall note that the specification provided is the minimum requirement and the System Integrator shall procure better equipment if it is required to meet the service levels mentioned in the RFP.

SMC/SSCDL reserves the right to ask the bidder to supply only part of the hardware quoted and procure the rest of it separately by itself. The payments schedule will be adjusted accordingly.

All the hardware shall be new and procured for this project. The ownership of hardware shall be transferred to SMC/SSCDL on commissioning of hardware. However, SI will be fully responsible for maintaining these Assets during the contract period and will be fully accountable for the same.

Design Considerations for Data Center Infrastructure

(i) The bidder shall propose hardware such that at any point in time during the contract period, the resource utilization does not go beyond the levels defined below during 9 A.M. to 7 P.M.

- the average CPU utilization should not exceed 70% for more than 15 minutes in a single stretch
- the average memory utilization should not exceed 70% for more than 15 minutes in a single stretch
- the average Disk utilization should not exceed 70% for more than 15 minutes in a single stretch

- In case of breach of above, the bidder will be required to optimize the solution else the additional hardware has to be provided by the successful bidder to ensure the performance within the indicated levels, at no further cost.

(ii) The proposed Solution shall have following environments:

- Production environment at DC configured in High availability mode with no single point of failure in Active-Active Mode.
- Non-production environment consisting of Development/Quality/etc. at DC without HA

3.5. PROJECT MANAGEMENT AND GOVERNANCE

3.5.1 Project Management Office (PMO)

A Project Management office will be set up during the start of the project. The PMO will, at the minimum, include a designated full time Project Manager from SI. It will also include key persons from other relevant stakeholders including members of SSCDL/SMC and other officials/representatives by invitation. The operational aspects of the PMO need to be handled by the SI including maintaining weekly statuses, minutes of the meetings, weekly/monthly/project plans, etc. PMO will meet formally on a weekly basis covering, at a minimum, the following agenda items:

- Project Progress
- Delays, if any – Reasons thereof and ways to make-up lost time
- Issues and concerns
- Performance and SLA compliance reports
- Unresolved and escalated issues
- Project risks and their proposed mitigation plan
- Discussion on submitted deliverable
- Timelines and anticipated delay in deliverable if any
- Any other issues that either party wishes to add to the agenda.

During the development and implementation phase, there may be a need for more frequent meetings and the agenda would also include:

- Module development status
- Testing results
- IT infrastructure procurement and deployment status
- Status of setting up/procuring of the Helpdesk, DC hosting
- Any other issues that either party wishes to add to the agenda.

Bidder shall recommend PMO structure for the project implementation phase and operations and maintenance phase.

3.5.2 Project Monitoring and Reporting

The SI shall circulate written progress reports at agreed intervals to SSCDL /SMC and other stakeholders. Project status report shall include Progress against the Project Management Plan, status of all risks and issues, exceptions and issues along with recommended resolution etc.

Other than the planned meetings, in exceptional cases, project status meeting may be called with prior notice to the Bidder. SSCDL/SMC reserves the right to ask the bidder for the project review reports other than the standard weekly review reports.

3.5.3 Risk and Issue management

The SI shall develop a Risk Management Plan and shall identify, analyse and evaluate the project risks, and shall develop cost effective strategies and action plans to mitigate those risks.

The SI shall carry out a Risk Assessment and document the Risk profile of SSCDL/SMC based on the risk appetite and shall prepare and share the SSCDL/SMC Enterprise Risk Register. The SI shall develop an issues management procedure to identify, track, and resolve all issues confronting the project. The risk management plan and issue management procedure shall be done in consultation with SSCDL/SMC.

The SI shall monitor, report, and update the project risk profile. The risks should be discussed with SSCDL/SMC and a mitigation plan be identified during the project review/status meetings. The Risk and Issue management should form an agenda for the Project Steering Committee meetings as and when required.

3.6. KEY ACTIVITIES AND DELIVERABLES

The SI is responsible to supply, configure and manage the IT infrastructure & solution covering all hardware and software components under this project. All necessary activities in this regard shall be the responsibility of the SI during the implementation and post-implementation period. Operations and Maintenance of e-health solution shall include a range of services related to the operation & maintenance of the solution implemented under this RFP.

Following is the indicative list of activities to be performed:

(a) The System Integrator shall be responsible for end-to-end implementation and shall quote and provide/supply any items not included in the bill of material but required for commissioning of the application and meet the requirements of the RFP/Contract. SSCDL/HSCC shall not pay for any of the equipment not quoted in the bid but are required for successful completion of the project. However, the same has to be supplied by the System Integrator without any additional fees.

(b) The SI shall be required to carry out preventive and corrective maintenance of all hardware supplied including replacement of defective parts, installation and configuration of OS, Data Base and other tools during warranty period. The SI will ensure maximum uptime of the solution.

(c) The SI shall be required to repair the faulty component/equipment at the earliest or within the problem resolution time. However, if any component/equipment gives continuous trouble, the SI shall replace the same with the new compatible component/equipment of the same or higher configuration without any additional cost to SSCDL/HSCC.

(d) The SI must integrate hardware and software components along with rest of the IT Infrastructure to make the system integrated and fully functional.

(e) Necessary installation/reinstallation, configuration and implementation support to be provided by SI.

(f) SI will be responsible for shifting of equipment installed under this project as and when required.

(g) The solution must be configured and tuned to give maximum output.

(h) The System Integrator may be asked to supply all the installation material/ accessories/ consumables (e.g. screws, clamps, fasteners, ties anchor, supports, grounding strips, wires etc.) necessary for the installation and operation of the systems.

(i) The System Integrator has to prepare and submit a delivery report including details of components supplied. The delivery report will be validated by the identified SSCDL/HSCC authorized person.

(j) None of the components and sub-components that are declared "End-of-sale" by the respective OEM in next five years as on date of submission of Bid shall be proposed.

(k) Development and maintenance of necessary APIs for integration with website, mobile app or any other application.

(l) The server and other system software should be regularly patched/ updated. Major patching / update which requires system downtime has to be informed well in advance and should be undertaken only after the confirmation from the corresponding authority.

(m) System Integrator should have a governance structure in place to report to SSCDL/HSCC's team on daily, weekly and monthly basis and the solution should allow downloading of standard and custom reports on the monitoring status in various formats like PDF, Excel etc.

(n) The system integrator would also ensure adequate data security mechanism in place by the usage of the database encryption and secured data back-up practice where in the data being backed up would be encrypted and password protected.

(o) The SI will be responsible for network configuration and management of the IT infrastructure provided under this project.

(p) The System Integrator shall provide monitoring and management services during the contract period. The scope of the services shall include Monitoring, Administration and Management of the entire IT infrastructure of SMC Hospitals & Health Centres together with other Hospitals & health centres under SMC.

(q) SI will be responsible for customisation of the solution to meet the user requirement.

(r) SI will be responsible to provide onsite resources to monitor and manage the IT infrastructure created and implemented under this RFP. SI will also be responsible for enhancement and modifications to implemented solution through onsite team backed with necessary offsite support post Go-Live of the project.

(s) SI will be required to develop and deliver mobile app for Android and iOS platforms for HMIS including Telemedicine, PACS including Tele-Radiology, QMS & EMS. The broad functionalities of various modules have already been described under the HMIS, PACS, QMS & EMS covered in this RFP document. The mobile app should be developed/customized as per the requirement of various stakeholders viz. patient, hospital staff (Doctors, Nurses, Radiologist, Lab Technicians, Faculty, Students, Parents, Store In-Charge, Administrative officers etc.) at SMIMER Institute & other hospitals and health centres.

3.6.1 Monitoring, Administration & Management of IT Infrastructure

The selected SI will be required to monitor, administer and manage the IT infrastructure implemented as part of the project during the contract period to ensure maximum uptime and optimum performance. The physical infrastructure management and maintenance services shall include but not limited to:

1. Administration and Management of all physical and virtual environments.
2. Administration service to keep servers, storage and other IT infrastructure stable, reliable and efficient.
3. Proactive and reactive maintenance, repair and replacement of defective components (IT and Non-IT/ Hardware and Software). The cost for repair and replacement shall be borne by the System Integrator.
4. The selected System Integrator shall have to stock and provide adequate onsite and offsite spare parts and spare component to ensure that the uptime commitment as per SLA is met. To provide this service it is important for the selected System Integrator to have back-to-back arrangement with the OEMs.
5. Component that is reported to be down on a given date should be either fully repaired or replaced by temporary substitute (of equivalent configuration) within the time frame indicated in the Service Level Agreement (SLA). In case the selected System Integrator fails to meet the above standards of maintenance, there will be a penalty as specified in the SLA.
6. The selected System Integrator shall also maintain records of all maintenance of the system and shall maintain a logbook on-site that may be inspected by SSCDL/HSCC at any time.
7. Regular analysis of events and logs and maintain the reports for future audit purposes.
8. Periodic health check of the systems, troubleshooting problems, analysing and implementing rectification measures.
9. Take appropriate steps to comply with the audit observations made by various internal/ external auditors.

3.6.2 Systems Administration Services

Systems Administration Services performed by System Integrator shall ensure that SSCDL's IT Environment operates smoothly, securely and consistently. It also ensures Optimized use of IT resources. System Integrator shall ensure following services as part of System Administration activities during the contract period:

1. Configuration of server, storage, networking & security component parameters, operating systems administration and tuning.
2. Adequate hardening of the operating systems of the servers, storage & network equipment and security equipment to prevent known and unknown attacks.
3. Operating system administration, including but not limited to management of users, processes, resource contention, preventive maintenance and management of upgrades including migration to higher versions and patches to ensure that the system is properly updated.
4. Re-installation in the event of system crash/failures.
5. Maintenance of a log of the performance monitoring of servers including but not limited to monitoring CPU, disk space, memory utilization, I/O utilization, etc.
6. Periodic health check of the systems, troubleshooting problems, analysing and implementing rectification measures.
7. Troubleshooting issues in the infrastructure, network and IT application to determine the areas where fixes are required and ensuring resolution of the same.
8. Identification, diagnosis, and resolution of problem areas pertaining to the DC/DR site infrastructure and application and maintenance of assured SLA levels.
9. IT assets performance monitoring, fine-tuning, optimization & Problem Resolution

10. Configuring and monitoring of regular backups of relevant database and application so as to ensure minimum loss and ensure prompt restoration of the same as and when required.
11. Installation, configuration, monitoring and management of the storage system in accordance to the application requirement and uptime and KPI requirements.
12. Monitoring, maintenance and tuning of the databases to meet ensure optimum performance maximize efficiency and minimize outages, as necessary and proactively reviewing database logs and alert logs and taking appropriate actions.
13. Sever and application hardening to prevent attack from any known and unknown attacks. Ensuring that patches / workarounds for identified vulnerabilities are patched / blocked immediately.
14. Implementation and maintenance of standard operating procedures for maintenance of the infrastructure.
15. Management of the user names, roles and passwords of all the relevant subsystems, including, but not limited to servers, applications, storages etc.
16. The system administration activities shall include tasks including but not limited to setting up the IT assets, executing hardware and software updates when necessary covering various tasks such as Configuring and apportioning storage space, Management and integration of databases, implementing security on the Internet / Intranet, Performing periodic backup, executing hardware and software updates when necessary, IT assets performance monitoring, fine-tuning, optimization & Problem Resolution, Pro-active Disk management /Capacity planning, IT assets Configuration changes, Understanding Performance Bottlenecks and solving the issue proactively.
17. Provide database administration services including performance monitoring, performance tuning/ optimization, predictive maintenance of table spaces, log files, etc. and also administrative support for user registration, creating and maintaining user profiles, granting user access and authorization, providing ongoing user password support.
18. Monitoring, maintenance and tuning of the databases to meet performance standards, maximize efficiency and minimize outages, as necessary and proactively reviewing database logs and alert logs and taking appropriate actions.
19. End-to-end management of database on an ongoing basis to ensure smooth functioning of the same.
20. Conduct code and configuration reviews to provide tuning inputs to the State / User Department in order to improve the application performance or resolve bottlenecks if any.
21. Performance monitoring and tuning of the databases on a regular basis including, preventive maintenance of the database as required.
22. Management of database upgrade or patch upgrade as and when required with minimal downtime.
23. Regular backups for all databases in accordance with the backup and archive policies and conduct recovery whenever required with appropriate permissions.
24. Sever and application hardening to prevent attack from any known and unknown attacks like ransomware/DoS/SQL injection/etc.
25. Ensuring that patches / workarounds for identified vulnerabilities are patched / blocked immediately.
26. Operating system hardening through appropriate configuration and patch updates.

3.6.3 Warranty, ATS and Annual Maintenance Services

1. SI shall provide warranty, ATS and maintenance services for the entire solution covering all components including the IT infrastructure and software infrastructure for contract duration. System Integrator shall provide the comprehensive manufacturer's warranty in respect of proper design, quality and workmanship of all hardware, equipment, accessories etc. covered by this bidding document. System Integrator must warrant all hardware, equipment, accessories, spare parts, software etc. procured and implemented as per this bidding document against any manufacturing defects during the warranty period.
2. SI shall provide comprehensive and on-site warranty (for 5 years) for the infrastructure deployed on the project as per RFP during the contract period. SI need to have OEM support for these components and documentation in this regard need to be submitted to SSCDL/SMC on annual basis.
3. The Warranty Period of items ordered under staggered order shall end at different dates. The SI shall not dispute the same in future in any manner. SI to ensure uptime and availability of Project all time during the Warranty Period as well by resolving any bug and technical problems as soon as possible.
4. Maintain all defined Service Level Agreements (SLA) mentioned in this RFP.
5. SI shall be required to carry out preventive and corrective maintenance of all solution components including replacement of defective parts, installation and configuration of OS and other tools during warranty period.
6. Hand-over of the system at the end of the contractual period along with all documentation required to operate and maintain the system. After the completion of contract duration, SI shall hand over the entire solution covering all the components in working condition to SMC/SSCDL.
7. SI is responsible for sizing and procuring the necessary hardware and software licenses as per the performance requirements provided in the RFP. During the warranty period SI shall replace or augment or procure higher-level new equipment or additional licenses/hardware at no additional cost to the SSCDL/SMC in case the procured hardware or software is not enough or is undersized to meet the service levels and the project requirements.
8. Following activities to be carried out by SI during Post Implementation Support:
    a. Maintain the entire solution, modify, repair or otherwise make improvements in all components, if any to comply with Technical Specifications, Service Level Agreements specified in RFP.
    b. To ensure smooth operation of all components and the entire solution by undertaking routine and periodic maintenance including all periodic software upgrades in order to maintain the Minimum Service Levels specified in RFP.
    c. The SI shall carry out Preventive Maintenance (PM) of all components and should maintain proper records. Necessary PM activities including cleaning, washing, blowing, etc. will be carried out with proper security and safety measures from time to time. The PM should be carried out at least once in six months as per industry standard maintaining proper checklist. If required, SSCDL/SMC may ask to modify the maintenance plan/activity to cover additional components/activities.
    d. The SI shall carry out Corrective Maintenance for maintenance/troubleshooting of supplied hardware/software and support infrastructure. The SI shall also maintain complete documentation of problems, cause and rectification procedures for building knowledge base for the known problems in centralized repository, accessible to SSCDL/SMC team as well.
    e. Take responsibility for any defect or failure of any Components comprising of Hardware and Software (including non-IT/ passive items) due to defective design, material or workmanship, manufacturing or development defects or latent defect or normal wear and tear within the design limit, during the Contract Period.

f. The SI shall have to stock and provide adequate onsite and offsite spare parts and spare component to ensure that the uptime commitment as per SLA is met. No separate charges shall be paid for visit of engineers or attending to faults and repairs or supply of spare parts.

g. The rectification, change of spare of hardware and software units, modification and all software upgrades (Major and minor) shall have to be undertaken by the System Integrator to cure the faults/defects/deficiency in order to raise speed, efficiency and/or effectiveness of the sub system and achieve a higher performance level of Project within the Remedial Period specified by the SSCDL/SMC.

h. In case if breakdown/ maintenance work is required to be carried out during non-working days/ hours, the bidder shall attend the task(s) during this period at no extra payment.

i. The SI should either repair the equipment, or replace the equipment with new equipment, to ensure that the proposed system/solution is operational. Any equipment is either breakdown, damaged due to the negligence of SI, or any technical reasons, it should be replaced with new equipment or item under the guidance of operational team of the SSCDL/SMC.

j. In case the quoted item is not available in the market, the SI shall have to supply higher Version/ Replacement of that item with prior approval of SSCDL/SMC at no extra cost. No "End of Life" product should be supplied to minimize such instances during OEM support for 5 years. If any spare(s)/ material(s) found defective than the same should be repaired or new spare(s)/ material(s) is to be replaced. In any case second hand material is not allowed.

k. In case if the SI is not able to repair the original equipment or any part of it, the SI shall supply the new substitute of same specifications or of higher specifications, with prior approval of the concern officer in SSCDL/SMC. In case, if it is found that the substituted item is of lower quality/specification then the same must be replaced. In case of, repetitive instances, SSCDL/SMC will take punitive action against the bidder.

l. The SI should perform all the tasks that need to be taken to upkeep the proposed system in a 24 x 7 days environment. This includes but not limited to any component breakdowns, reworks; relay of cable/re-configure system that needed to perform / replace the breakdown components etc. as per SLA.

m. The SI should also take up the work including reworks, relaying of cable cuts, shifting of equipment, reconfiguring the system, optimization or performance of the proposed system/solution, re-installation of software, expansion to the existing system such as adding Digital Display Boards etc. as & when needed. SI to ensure above activities without any additional cost to SMC/SSCDL

n. The SI will supply all the installation material/ accessories/ consumables (e.g., screws, clamps, fasteners, ties anchor, supports, grounding strips, wires etc.) necessary for the installation and operation of the systems.

o. Deploy required number of competent technical manpower /engineers/ supervisors along with necessary desktop, software applications, spare parts, standby items and inventories of all parts of the proposed system during the Contract period at its own cost for evaluation of performance, operation, maintenance and management of all components in order to maintain the Minimum Service Levels specified in RFP and ensure necessary customisation support during the Contract period. Necessary technical personnel shall also be deputed by the SI at its own cost for investigating defects and failures and carrying out modifications as and when required during the Contract Period.

p. Ensure smooth operation of the end-to-end solution during the Contract Period by undertaking routine and periodic maintenance of all components and carrying out

rectification, modification, software upgrades, change of spare if need so arise in order to maintain the Minimum Service Levels all time during the Contract Period.

q. Ensure uptime and availability of the proposed system/solution, all times of Contract Period at all identified locations in relation to the minimum Service Levels specified in this RFP and the scope specified in RFP

r. Undertake timely upgradation of the system if need so arise during the Contract Period.

s. Prepare a Maintenance Manual and other manuals specified in this RFP in consultation with SSCDL/SMC or its PMC specifying the detailed operation plan, methodology and time period of regular and preventive maintenance, comprehensive information of equipment, hardware, software (including Non-IT/ passive items) used in Project, operation procedure of each sub system installed, the repair and maintenance procedures of each component and hardware of the Project, procedures for diagnosis, removal of bugs and replacement of any item of equipment, diagnosis procedures of faults and procedures for removing it and replacing. These manuals shall be detailed as per the RFP requirements.

t. Provide all MIS report specified in RFP or any other reports required by SSCDL/SMC.

u. Component that is reported to be down on a given date should be either fully repaired or replaced by temporary substitute (of equivalent configuration) within the time frame indicated in the Service Level Agreement (SLA). In case the selected System Integrator fails to meet the above standards of maintenance, there will be a penalty as specified in the SLA.

v. The SI shall also maintain records of all maintenance of the system and shall maintain a logbook on-site that may be inspected by SMC/SSCDL at any time

w. The support for planning, optimization and tuning of hardware and software after commissioning, whenever needed during Operation period/ Warranty / AMC shall be provided by System Integrator at no extra cost to SMC/SSCDL.

x. Take all precautions to ensure that all software and hardware (including non-IT/ passive items) involved remains safe and secure in general and free from attacks arising from attempted manipulation, fraud, break down, compromising of data security, malware and virus attacks, physical attacks or damage due to neglect or omission.

y. Provide training and handholding support to SSCDL/SMC to utilise the implemented solution in an efficient manner.

z. The server and other system software should be regularly patched/ updated. Major patching / update which requires system downtime has to be informed well in advance and should be undertaken only after SMC/SSCDL's confirmation.

aa. SI will be responsible for network configuration and management of the IT infrastructure provided under this project.

bb. Ensure that any premises/Project Site provided by SSCDL/SMC to the System Integrator for the purpose of carrying out its obligations shall be used solely for the purpose of carrying out the functions intended and obligations placed under this contract and not for any other purposes.

cc. The SI shall not permit anti-social activities/illegal activities on Project Site during the Contract Period. Any liabilities arising as consequences of such event shall be borne by the SI. On occurrence of such event, the SI shall solely responsible for legal remedies and SSCDL/SMC may consider Termination on occurrence of such event.

dd. Take prompt and reasonable action for redressal of each complaint received from users including complaints received by SSCDL/SMC related to ICCC and Outdoor Digital Display Boards.

ee. Obtain and keep valid all applicable permits/ Licenses required by it under applicable laws for carrying out its scope of work during the Contract Period.

ff. The SI shall be required to hand over all the equipment's under the scope of this project in working condition at the time of completion/termination of the Contract, otherwise the equipment, found faulty, shall be rectified from any external agency and whole replacement/repair cost will be borne by the SI only.

gg. SI is not responsible to maintain the existing infrastructure which is being re-utilized for this scope. However, SI is required to inform the SMC/SSCDL if any damage/discrepancies observed during the monitoring. SMC. SSCDL shall get the faulty equipment repaired by their respective Service Provider.

hh. Warranty Terms shall not be applicable in the event of damages due to Vandalism, tempering of hardware or any of the Project components by Authority's staff or any external party. In such an event, the SSCDL/SMC shall request the SI to repair/replace the damaged component and reinstall the same. Reasonable repair/replacement costs towards the same shall be reimbursed by the SSCDL/SMC to the SI less of insurance proceeds.

3.6.4 Provision for Onsite Support

The SI shall be required to depute well competent and experienced manpower in required strength during the implementation period so as to ensure timely delivery of the solution as per RFP requirements. The team should comprise of component resources of respective domains and must be led by competent Project Manager with qualification and experience as per below.

1	**Project Manager** **Educational Qualification:** BE/B. Tech (computer steam) or MCA **Work experience:** Minimum 8 years of experience in ICT implementation Projects out of which minimum 3 years' experience as a project manager for HMIS projects. **Roles & Responsibility:**S/he will be the SPOC for SMC/SSCDL and will be responsible to ensure coordinated efforts by all involved stake to ensure delivery as per defined milestones under the RFP. S/he will interact with back-office team of SI and OEMs in this regard. The Project Manager must be proficient with the HMIS solution offered and must possess in-depth knowledge of the solution. S/he must have proven functional & technical expertise, excellent client management, communication and leadership skills.

As part of the delivery of the solution it is expected that the Bidder shall provide Post Go Live Support ("PGLS") for the solution post first Go-Live till completion of total contract period of five years. The Post Go Live Support ("PGLS") will start after completion of 3 months of Hypercare Support after Go Live. Necessary transition needs to be taken care by the bidder during these handovers from implementation team to support team. Warranty support for the solution will be provided for the 3 months Hyper Care Support period or until all defects in the Solution for which the Bidder shall be responsible are resolved, whichever is longer. Defects include those that were known prior to Go-Live and any new defects that materialize in operation during Warranty period.

SI shall deploy Manpower during implementation and O&M phases. The deployed resource shall report to SSCDL/SMC Project In-charge. The support team must be backed by off-site support as necessary. The SI's Post Go Live Support team shall be responsible for the efficient functioning of the system and continued delivery of stable systems, development, and operational support. It is expected that out of business hours support will be provided as needed.

During the contract period necessary customisation, enhancement and functionality development

activity will be carried out by the onsite resources with necessary off-site support as and when required. The bidder will be responsible for preventive maintenance, managing releases, monitoring and system health checks and incident management. If required the bidder will be required to ensure out of business hours support considering the criticality of the services. The onsite team must possess requisite knowledge and expertise to maintain and enhance the solution and the same must be backed by offsite team for necessary and expeditious support.

Support of the system is key to establishing system and process stability following the deployment. Over and above the technical support required in this period, it is expected that support efforts shall target improving end-user familiarization with new applications and processes to enhance adoption and aid transition of new processes to a business-as-usual status.

Minimum Required onsite support: The bidder is required to provide the dedicated onsite team as per the below mentioned table during the support. Necessary backend support must be extended to the onsite team so as to achieve the SLAs and KPIs defined in RFP. Project Manager will be the SPOC for SMC/SSCDL, who intern will coordinate with onsite and offsite team members. Critical activities like Database Management & Maintenance, System Administration, etc. must be properly performed to ensure optimum performance and maximum uptime and if required necessary onsite competent resource should be made available from time to time over and above the minimum required onsite resources without any additional cost. SI will also be responsible to provide necessary end user support for the software and hardware components.

It is envisaged that the system will get matured over a period of time and will be required to customise and enhance over a period of time to meet the requirements of various stakeholders. The onsite team will be responsible for such modification / enhancement activity with necessary customisation and development of the solution. The primary responsibility of the onsite team will be the enhancement/development which will include Service request/minor enhancement and major Enhancements. Such development activity will not be subject to extra payment. Necessary backend support must be imparted by SI to the onsite team so that apart from maintaining and managing existing setup the team is able to deliver new development/integration activities.

Following are the minimum resources required to be deployed onsite in the Project, however SI may deploy additional resources based on the need of the Project and to meet the defined SLAs in this RFP:

#	Personnel	Required Minimum Onsite Quantity
1	Project Manager	1
2	Application Developer	3
3	Helpdesk Support	1
4	Hardware & Network Engineer	2
	Total	**7**

#	Qualification & Experience of the Onsite Resource
1	**Project Manager** **Educational Qualification:** BE/B. Tech (computer steam) or MCA **Work experience:** Minimum 8 years of experience in ICT implementation Projects out of which minimum 3 years' experience as a project manager for HMIS projects. **Roles & Responsibility:**S/he will be the SPOC for SMC/SSCDL and will be responsible to ensure service deliveries during Post-Go-Live are as per the RFP requirements and at par to the KPIs and SLAs defined for the entire project. S/he will interact with back-office team of SI and OEMs in this regard. The Project Manager must be proficient with the HMIS

	solution offered and must possess in-depth knowledge of the solution. S/he must have proven functional & technical expertise, excellent client management, communication and leadership skills. S/he must be in a position to identify the root cause of problem/bugs if any with various solution components and get it resolved. S/he must possess expertise in creation and configuration of the SOPs. S/he must be competent enough to manage, maintain, augment and enhance the deployed e-Health solution. S/he must coordinate with all the stakeholders and ensure smooth operation of the project. S/he will also be responsible to ensure the overall health of the e-Health Project.
2	**Application Developer** **Educational Qualification:** BE/B. Tech (computer steam) or MCA **Work experience:** Minimum 5 years of experience in software development domain. **Roles & Responsibility:** The Application Developer will be responsible to carry out necessary changes in the application, provide application-level support to the users, and coordinate with users for easy and early adaptation of the system. S/he shall be well versed and experienced to carry out necessary software development activities to handle above stated activities. S/he must be in a position to ascertain and carryout the necessary activities w.r.t. any minor or major changes in the existing system. S/he will capture the requirements and carry out necessary developments on her/his own. S/he will keep the Project Manager informed about the activities. S/he will interact the OEM/back-office team either directly or through Project Manager for necessary changes/developments/support issues for resolving problems if any.
3	**Helpdesk Support** **Educational Qualification:** Graduate (computer steam) **Work experience:** Minimum 3 years of experience in maintenance of Helpdesk Support Services and Incident Lifecycle Management (Ticket Logging to closure), problem analysis and resolution, proactive monitoring of health of various IT infrastructure etc. **Roles & Responsibility:** The Helpdesk Support will keep track of requirements/requisitions/problems by coordination with team members. S/he will provide first hand support to the end user and if required coordinate with respective resource for the closure of the complaint.
4	**Hardware & Network Engineer** **Educational Qualification:** Graduate / Diploma (computer/electronics stream) **Work experience:** Minimum 3 years of experience in IT infrastructure management **Roles & Responsibility:** S/he will be responsible to responsible to monitor the health of the IT infrastructure. S/he will be responsible to ensure preventive and breakdown maintenance services as per the RFP requirements. S/he will resolve any hardware/network related issues pertaining to e-Health solution. S/he will keep the Project Manager informed about the activities. S/he will interact the OEM/back-office team either directly or through Project Manager for necessary repair/replacement of hardware or support issues for resolving problems if any.

Note:

- Deputed resources must be imparted necessary training by the SI/OEM to perform their tasks effectively.

- Deputed resources must have mobile phones round the clock. Hardware and network engineer must have personal vehicle.
- Availability of the required man-power should be 100% except for Sundays. SSCDL/SMC shall take the attendance through biometric and/or mobile based GPS attendance of each person proposed as part of team on monthly basis.
- Deputed resources will be required to take the approval from the SSCDL or concerned authority for in case of planned leaves. SI is responsible to provide the replacement of unavailable manpower till the leave duration.
- Support Engineers are entitled to take 12 leaves in a year.
- Any leave beyond permissible leave shall be subject to penalty if no suitable replacement is available.

1. Considering the criticality of the nature of work, the SI is expected to deploy the best of the breed resources to ensure smooth service delivery to the end users and seamless coordination with other entities involved for tasks related to smooth operation of entire Project.
2. The SI will be notified through an email or phone or any other medium by the SSCDL/SMC or any operational team that would exist as the case may be on the issues faced related to the system. The SI will be required to extend support during office hours and beyond as well to attend the issues.
3. The SI shall arrange the suitable replacement in case the onsite resource goes on leave or is unavailable due to any other reason to ensure uninterrupted support services. SI may also require to engage additional manpower on case-to-case basis for proper operation & support of the system
4. The deputed resources shall be responsible to identify the fault and take corrective measures. If required necessary back-office support to be provided by SI.
5. The onsite resources shall be deputed for the sole purpose of this project.
6. The resources shall be responsible for the installation, re-installation, maintenance and troubleshooting the hardware and software supplied and installed for the duration of the contract. SMC/SSCDL may provide a table space for the engineer(s) deputed for the sole purpose of servicing products installed under this project at SMC.
7. The onsite resources shall be required to install, configure and trouble shoot all hardware / software issues pertaining to smooth functioning of deployed system/solution at various locations within SMC limit. In case of major issues, the support engineer will be required to inform SMC. The same applies for network problems as well, where in client-side trouble shooting and primary diagnosis is to be done by the deputed resident support engineer.
8. The SI shall depute only such individuals as are skilled and experienced in the works to be executed under the contract. The SMC/SSCDL has all the rights to reject the services of any support engineer and can ask for a change, if not found fit. The service engineer's leave applications are to be channelled through SMC/SSCDL. In the event of change of any support engineer from the site, prior approval from the Head of ISD, SMC shall be essential.
9. The SI shall be responsible for providing all materials, equipment, installation / maintenance tools and services, specified or otherwise, which are required to fulfil the intent of ensuring operation-ability/ maintainability and reliability of total materials covered under these specifications

3.6.5 e-Health Application Software Administration, Management& enhancement

SI shall be responsible for comprehensive administration, management and enhancement support for the solution implemented during the contract period.

Application support includes, but not limited to, production monitoring, troubleshooting and addressing the functionality, availability and performance issues, implementing the system change requests etc. The SI shall keep the application software in good working order; perform

changes and upgrades to applications as requested by the SSCDL/SMC team. All tickets related to any issue/complaint/observation about the system shall be maintained as per ITIL standard, in this regard bidder may install on premise solution or propose could base solution (no extra payment will be made for this solution). Indicative list of key activities to be performed by SI in the application support phase are as follows:

a. **Compliance to SLA:** SI shall ensure compliance to SLAs as indicated in the RFP and any upgrades/major changes to the software shall be accordingly planned by SI ensuring the SLA requirements.
b. **Annual Technology Support:** The SI shall be responsible for arranging for annual technology support for the OEM products to SSCDL/SMC provided by respective OEMs during the entire project duration
c. SI shall be responsible for Management, Troubleshooting and fine-tuning the e-Health Solution covering all its hardware and software components.
d. SI shall provide unlimited support through onsite team or offsite team as and when required during the contract period.
e. SI shall address all the errors/bugs/gaps in the functionality in the solution implemented by the SI at no additional cost during the O&M phase.
f. All patches and upgrades from OEMs shall be implemented by the SI ensuring customization done in the solution as per the SSCDL/SMC requirements are unaffected. Technical upgrade of the installation to the new version, as and when required, shall be done by the SI. Any version upgrade of the software / tool / appliance by SI to be done after taking prior approval of SSCDL/SMC and after submitting impact assessment of such upgrade.
g. SI shall be responsible for necessary customisation and enhancement to the implemented solution based on the requirement of SMC/SSCDL within a reasonable time period.
h. SI shall be responsible to furnish necessary data and reports as per the requirement of SMC/SSCDL based on fixed periodicity or as and when required.
i. Any changes/upgrades to the software performed during the support phase shall subject to the comprehensive and integrated testing by the SI to ensure that the changes implemented in the system meets the specified requirements and doesn't impact any other function of the system. Release management for application software will also require SSCDL/SMC approval. A detailed process in this regard will be finalized by SI in consultation with SSCDL/SMC.
j. Issue log for the errors and bugs identified in the solution and any change done in the solution shall be maintained by the SI and periodically submitted to the SSCDL/SMC team.
k. SI, at least on a monthly basis, will inform SSCDL/SMC about any new updates/upgrades available for all software components of the solution along with a detailed action report. In case of critical security patches/alerts, the SI shall inform about the same immediately along with his recommendations. The report shall contain SI's recommendations on update/upgrade, benefits, impact analysis etc. The SI shall need to execute updates/upgrades though formal change management process and update all documentations and Knowledge databases etc. All such updates and upgrades will be carried out free of cost.
l. **Problem Identification and Resolution:** SI shall identify and resolve all the application problems in the identified solution (e.g., system malfunctions, performance problems and data corruption etc.). Monthly report on problem identified and resolved would be submitted to SSCDL/SMC team along with the recommended resolution.
m. **Change and Version Control:** All planned or emergency changes to any component of the system shall be through the approved Change Management process. For any change, SI shall ensure:
    - Detailed impact analysis
    - Change plan with Roll back plans
    - Appropriate communication on change required has taken place
    - Proper approvals have been received

- Schedules have been adjusted to minimize impact on the production environment
- All associated documentations are updated post stabilization of the change
- Version control maintained for software changes
- The SI shall define the Software Change Management and Version control process. For any changes to the solution, SI has to prepare detailed documentation including proposed changes, impact to the system in terms of functional outcomes/additional features added to the system etc. SI shall ensure that software and hardware version control is done for entire duration of SI's contract.

n. **Maintain Configuration Information:** SI shall maintain version control and configuration information for application software and any system documentation.

o. **Maintain System Documents:** SI shall maintain at least the following minimum documents with respect to the proposed solution/system:
   - High level design of whole system
   - Low Level design for whole system / Module design level
   - System requirements Specifications (SRS)
   - Any other explanatory notes about system
   - Traceability matrix
   - Compilation environment
   - SI shall also ensure updating of documentation of software system ensuring that:
     - Source code for customization is documented
     - Functional specifications are documented
     - Application documentation is updated to reflect on-going maintenance and enhancements including FRS and SRS, in accordance with the defined standards
     - User manuals and training manuals are updated to reflect on-going changes/enhancements
     - Standard practices are adopted and followed in respect of version control and management

   All the projects documents need to follow version control mechanism. SI will be required to keep all project documentation updated and should ensure in case of any change, the project documents are updated and submitted to SSCDL/SMC by the end of next quarter.

3.6.6 User Support and Management

3.6.6.1 Problem Identification and Resolution:

a. SI shall be required to identify and resolve all the problems that are identified in the implemented solution covering all solution components (e.g., system malfunctions, performance problems and data corruption etc.).
b. The problem resolution must be prompt to ensure minimum interruption or downtime.
c. The recurring problems must be identified and permanent resolution to be provided to avoid further recurrence.
d. SI will also be required to monitor and manage the performance of the entire solution and necessary finetuning and optimisation should be done from time to time on a continuous basis during the contract period to ensure optimum output.
e. Monthly report on problem identified and resolved would be submitted to SSCDL/SMC team along with the recommended resolution.

3.6.6.2 Help Desk Services

SI will be responsible to provide necessary Helpdesk support services for complaint registration, support, queries, services, etc. related to any component of the solution as part of the Scope mentioned in this RFP. Given below is an indicative list of tasks to be performed by the SI for support services. SMC/SSCDL may direct SI to perform any additional / similar tasks, as per its requirement during the contract period.

a. The SI has to maintain Dedicated Centralized Help Desk Service for end users, to solve the problems related to IT Infrastructure and solution implemented under the scope of this contract.
b. Help desk services should act as a single point of contact, to solve day-to-day problems of end users and provide them first hand support. The nominated helpdesk must interact cordially with the end user. S/he will carry out necessary activities to resolve the problem as per the response and resolution time.
c. For this purpose, SI shall provide the contact number and email id to SSCDL/SMC for registration of complaint.
d. Each complaint shall generate the ticket mentioning date and time of registration. The ticket number should be provided to client at the time of complain registration. All tickets related to any issue/complaint/observation about the system shall be maintained as per ITIL standard, in this regard bidder may install on premise solution or propose cloud base solution (no extra payment will be made for this solution). The details of the complaint redressal to be captured indicating actions taken for its resolution.
e. Help desk will be responsible for
    i. Log user calls and give them a call ID number
    ii. Assign severity level to each call
    iii. Track each call to resolution and record resolution details.
    iv. Ensuring the resolution of the complaints in the shortest possible time.
    v. Escalate the call to the relevant team like User support, System Administration, Network administration, HMIS application support etc. which is capable of resolving the issue and keep the IT team of the SSCDL/HSCC informed suitably.
    vi. Analyse the call statistics.
f. The help desk should be capable of solving the problem by firstly providing telephonic support, and if the problem persists then by deputing technically qualified personnel for the remedy.
g. Help Desk will be responsible to generate reports to track following:
    i. Call Analysis
    ii. Call Trend
    iii. Call History Report
    iv. Daily call completed and pending Reports along with reason for not completion
f. The SI would prepare an escalation matrix in consultation with the IT team of the SSCDL/HSCC for the different categories of call.
g. The selected SI will have to arrange its own hardware and software tools, if any needed, to run the help desk facilities.
h. Any other help / service desk related services not listed above but required for smooth functioning of help / service desk services as directed by SMC.

3.6.6.3 End users Support

a. SI will be responsible for providing installation and configuration support to the end user for the solution components under this RFP.
b. The SI must ensure mechanism to report service calls/breakdown calls with respect to IT infrastructure supplied/installed under the scope of the Project and its resolution beyond office hours to ensure continued operation at SMC run hospitals & health centres.
c. This will include configuration of the browser, installation of necessary application software, DLLs, etc.
d. SI will be responsible for installation and commissioning of supplied hardware including configuring necessary software application, antivirus, drivers for printers/scanner/etc. and its trouble shooting.
e. SI will be responsible to provide end user application support either remotely or onsite as per the requirement. This support shall not be limited to the workstation/desktops provided by

SI under this RFP. In case of workstation/desktops/printer/scanner not provided by SI, necessary primary hardware trouble shotting will be done by SI's resources.

f. In case telephonic solution to the call doesn't solve the problem/complaint, the call of HMIS user (Clinical Area) has to be attended within 30 minutes whereas all other calls of HMIS have to be attended with in 1 hour.

g. In case telephonic solution to the call doesn't solve the problem/complaint, the Services related to any breakdown call or non-functioning call from end users of Internet/ E-mail has to be attended within 2 hours.

h. SI will also be responsible for primary network trouble shooting to identify the exact nature of problem.

i. In case of issue owing to hardware/network not within the scope of SI, necessary inputs based on the primary troubleshooting will be provided to the concerned agency.
SI will provide necessary support for
Installation/Reinstallation/Configuration/Reconfiguration of the application and hardware components.

4. PRE-QUALIFICATION & EVALUATION CRITERIA

4.1 OEM'S ELIGIBILITY CRITERIA

To be considered qualified for evaluation of Technical Proposal, the respective OEM must meet the below mentioned OEM eligibility criteria:

4.1.1 HMIS OEM

#	Pre-Qualification Criteria	Proof Document Required
1.	The HMIS solution OEM should be: A company incorporated in India under the Companies Act, 1956 (and subsequent amendments thereto) and in operation for at least 5 years as on publication of bid. OR Registered LLP as per the schedule 3 of the LLP Act 2008 and in operation for at least 5 years as on publication of bid.	Certificate of Incorporation / Registration Certificate
2.	The proposed HMIS solution should have been implemented and "Gone Live" for minimum three (3) clients in India in last 10 years from the date of issuance of RFP out of which one (1) should be Government (State or Central) / Public Sector Units/ ULB customer. HMIS application component should be of minimum Rs. 1 crore (excluding hardware & other licensed software components) under each project.	1 Work order of projects for HMIS Solution 2 Any client document that clearly specifies the project completion/go-live date and value of HMIS application component. 3 Note: In case of an ongoing project, the complete project must have achieved UAT and must have achieved a value of Rs. 1 crore from financial perspective at the time of RFP issuance. In this regard, a certificate from the client is required to be submitted.
3.	The proposed HMIS should have been implemented and "Gone Live" for minimum three (3) clients in India in last 10 years from the date of issuance of RFP of which one project must have been implemented for minimum 500 bedded hospital and remaining two must have been implemented for minimum 100 bedded hospital each.	1 Work order of projects for HMIS Solution 2 Any client document that clearly specifies the project completion/go-live date and value of HMIS application component. 3 Note: In case of an ongoing project, the complete project must have achieved UAT at the time of RFP issuance. In this regard, a certificate from the client is required to be submitted. 4 Any client document that clearly specifies hospital bed

		capacity where HMIS solution has been deployed.
4.	The proposed HMIS should have been implemented and "Gone Live" for minimum one (1) client in India in last 10 years from the date of issuance of RFP for its five geographical separate institutions of which one location must be a minimum 100 bedded hospital. The solution implemented should be centralised HMIS application/single instance solution.	1 Work order of projects for HMIS Solution 2 Any client document that clearly specifies the project completion/go-live date and value of HMIS application component. 3 Note: In case of an ongoing project, the project must have achieved UAT at the time of RFP issuance. In this regard, a certificate from the client is required to be submitted. 4 Any client document that clearly specifies multilocation implementation and hospital bed capacity where HMIS solution has been deployed.
5.	The OEM's average annual turnover for the last three financial years i.e., 2018-19, 2019-20 and 2020-21 should be minimum INR 5 crores.	Financial Capability Statement as in Section-10 Form –1.5
6.	The OEM should commit to support the product proposed in the scope of this RFP for at least seven (7) years from the bid start date. End of support date should not have been announced for the product proposed.	OEM Self-certificate as per Section-10 Form –1.12A
7.	Proposed solution to come with complete transparency including the Source Code for Customization.	OEM Self-certificate as per Section-10 Form –1.12A
8.	The HMIS OEM must have the following certification: 1. CMMI level 3 or higher 2. ISO 9001:2008 or higher	Copy of original CMM / CMMi Certificate (valid as on date of issuance of bid)
9.	The OEM should not have been blacklisted by Central Government/State Government or any other autonomous institution presently nor any proceedings for blacklisting has been initiated by Central Government/State Government or any other autonomous institution against the bidder and should not have been convicted for any criminal offence.	Undertaking as per Section-10 Form –1.6

4.1.2 PACS OEM

#	Pre-Qualification Criteria	Proof Document Required
1	The PACS OEM must be a company incorporated in India under the Companies Act, 1956 (and subsequent amendments thereto) and must have experience of atleast 5 years in deploying PACS solution in India as on publication of bid. OR Registered LLP as per the schedule 3 of the LLP Act 2008 and in operation for at least 5 years as on publication of bid.	1 Certificate of Incorporation / Registration Certificate 2 Work order clearly indicating experience of atleast 5 years in PACS solution deployment
2	The PACS OEM must have done at least one RIS-PACS and VNA level based PACS implementation in India in last 10 years from the date of issuance of RFP	1 Work order for PACS solution deployment. 2 Any client document that clearly specifies the project completion/go-live date. 3 Any client document that clearly specifies RIS-PACS and VNA level based PACS solution has been deployed.
3	The PACS OEM must have minimum 1 PACS installation with 2 or more hospital/health centre connectivity in India.	1 Work order for PACS solution deployment. 2 Any client document that clearly specifies multilocation implementation where PACS solution has been deployed. 3 Any client document that clearly specifies the project completion/go-live date.
4	The proposed PACS solution must have been implemented at minimum 10 sites in India in last 10 years from the date of issuance of RFP of which minimum 3 installations should be for minimum 200 Bedded hospitals in India.	1 Work order for PACS solution deployment 2 Any client document that clearly specifies hospital bed capacity where PACS solution has been deployed. 3 Any client document that clearly specifies the project completion/go-live date.
5	The proposed PACS solution must have been implemented for at least one government hospital with more than 200 beds in India.	1 Work order for PACS solution deployment 2 Any client document that clearly specifies hospital bed capacity where PACS solution has been deployed. 3 Any client document that clearly specifies the project completion/go-live date.
6	The OEM's average annual turnover for the last three financial years i.e., 2018-19, 2019-20 and 2020-21 should be minimum INR 1 Crore.	Financial Capability Statement as in Section-10 Form –1.5

7	The OEM should not have been blacklisted by Central Government/State Government or any other autonomous institution presently nor any proceedings for blacklisting has been initiated by Central Government/State Government or any other autonomous institution against the bidder and should not have been convicted for any criminal offence.	Undertaking as per Section-10 Form –1.6
8	The OEM should commit to support the product proposed in the scope of this RFP for at least seven (7) years from the bid start date. End of support date should not have been announced for the product proposed.	OEM's MAF as per Section-10 Form –1.11

4.1.3 QMS OEM

#	Pre-Qualification Criteria	Proof Document Required
1	The QMS OEM must be a company incorporated in India under the Companies Act, 1956 (and subsequent amendments thereto) and must have experience of atleast 3 years in deploying QMS solution in India as on publication of bid. OR Registered LLP as per the schedule 3 of the LLP Act 2008 and must have experience of atleast 3 years in deploying QMS solution in India as on publication of bid.	1 Certificate of Incorporation / Registration Certificate 2 Work order clearly indicating experience of atleast 3 years in QMS solution deployment
2	The proposed QMS solution must have been implemented at minimum 5 sites in in India in last 10 years from the date of issuance of RFP.	1 Work order for QMS solution deployment 2 Any client document that clearly specifies the project completion/go-live date.
3	The proposed QMS solution must have been implemented for at least one healthcare facility with minimum OPD load of 800 patient registrations per day.	1 Work order for QMS solution deployment 2 Any client document that clearly specifies OPD load where QMS solution has been deployed. 3 Any client document that clearly specifies the project completion/go-live date.
4	The OEM should not have been blacklisted by Central Government/State Government or any other autonomous institution presently nor any proceedings for blacklisting has been initiated by Central Government/State Government or any other autonomous institution against the bidder and should not have been convicted for any criminal offence.	Undertaking as per Section-10 Form –1.6

5	OEM should have at-least ISO ISO:9001 or higher certification.	Copy of Certificates (valid as on date of submission)
6	The OEM should commit to support the product proposed in the scope of this RFP for at least seven (7) years from the bid start date. End of support date should not have been announced for the product proposed.	OEM's MAF as per Section-10 Form –1.11

4.2 BIDDER'S ELIGIBILITY CRITERIA

The bidder must possess the requisite experience, strength and capabilities in providing services necessary to meet the requirements as described in the RFP document. Keeping in view the complexity and volume of the work involved, following criteria are prescribed as the eligibility criteria for the bidder interested in undertaking the project. The bidder must also possess technical know-how and financial ability that would be required to successfully provide System Integration, Operation and Maintenance services sought by SMC/SSCDL for the entire contract duration. The bids must be complete in all respect and should cover entire scope of work as stipulated in the bid document. This invitation to bid is open to all bidders who qualify the eligibility criteria as given below:

The Pre-Qualification Criteria for the selection of the vendor or consortium are given below. In case of Consortium, please refer the section 7.7.

Note: For evaluation following definition is considered

- The total Project value shall be considered as Capex Cost + Operation & Maintenance Cost.
- OEM experience will not be considered for Pre-Qualification Criteria and Technical Evaluation as bidder's experience unless bidder is also an OEM.
- In case of Consortium only one (1) partner is allowed including Prime Bidder. For more details on Consortium please refer to the section 7.7.
- Sub-contracting is allowed only for the activity enlisted under the RFP through sub-contractor meeting the minimum eligibility criteria.
- R&R refers to roles & responsibilities mentioned in Consortium Agreement.

4.2.1 ROLES & RESPONSIBILITY BIFURCATION

The following table clearly bifurcating the roles and responsibility in case the bidder is sole bidder or bidding in consortium and the activity which can be sub-contracted. The bidder is required to make sure that the minimum eligibility criteria is met by respective entity based on the roles & responsibility.

Roles & Responsibility Bifurcation					
Biding Options	**SITC & Maintenance of complete HMIS Solution**	**SITC & Maintenance of complete PACS Solution**	**SITC & Maintenance of complete QMS Solution**	**SITC and Maintenance of IT Hardware & Network Infrastructure**	**Deployment of onsite Manpower for Maintenance Support post Go-Live**
	(1)	(2)	(3)	(4)	(5)
Prime Bidder without Consortium Partner	Prime Bidder	Prime Bidder or Sub-contractor	Prime Bidder or Sub-contractor	Prime Bidder or Sub-contractor	Prime Bidder
Prime Bidder with One Consortium Partner	Prime Bidder or Consortium Member	Prime Bidder or Consortium Member or Sub-contractor	Prime Bidder or Consortium Member or Sub-contractor	Prime Bidder or Consortium Member or Sub-contractor	Prime Bidder or Consortium Member
In case of consortium, each member must be assigned atleast one responsibility out of (1), (2), (3) and (4) above and the same must reflect in the Consortium Agreement.					

4.2.2 PRE-QUALIFICATION CRITERIA

#	Pre-Qualification Criteria	Proof Document Required	Applicable to Prime Bidder / Sole Bidder	Applicable to Consortium Partner	Applicable to Sub-contractor
1.	The Bidder should be: • A company incorporated in India under the Companies Act, 1956 (and subsequent amendments thereto) and in operation for at least 5 years as on publication of bid. OR Registered LLP as per the schedule 3 of the LLP Act 2008 and in operation for at least 5 years as on publication of bid.	Certificate of Incorporation / Registration Certificate	Yes	Yes	Yes
2.	The prime bidder should have average turnover of minimum INR 10 crores in last three financial years i.e., 2018-19 2019-20 & 2020-21.	Financial Capability Statement as in Section-10 Form –1.5	Yes	No	No
3.	In case of consortium, the second member of consortium or the sub-contractor should have average turnover of minimum INR 5 crores in last three financial years i.e., 2018-19 2019-20 & 2020-21.	Financial Capability Statement as in Section-10 Form –1.5	No	Yes	Yes
4.	The Bidder (all Members in case of a consortium) must have positive net worth as on 31st March 2021.	Certificate from the statutory auditor / CA towards positive net worth of the company as in Section-9 Form – 1.4	Yes	Yes	Yes
5.	The Bidder (all members in case of consortium) or the sub-contractor should be registered for GST number in India.	Copy of GST Registration Certificate	Yes	Yes	Yes
6.	Sole Bidder / Primer Bidder or Consortium member (if proposed for SITC and Maintenance of HMIS Solution) should have implemented HMIS solution for minimum three (3) clients in India in last 10 years from the date of issuance of RFP out of which one (1) should be Government (State or Central) / Public Sector Units/ ULB customer. HMIS application component should be of minimum Rs. 1 crore (excluding hardware & other licensed software components) under each project.	- Work order of projects for HMIS Solution - Any client document that clearly specifies the project completion/go-live date and value of HMIS application component. - Note: In case of an ongoing project, the complete project must have achieved UAT and must have achieved a value of Rs. 1 crore from financial perspective at the time of RFP issuance. In this regard, a certificate from the	Yes	Yes	Not allowed

		client is required to be submitted.			
7.	Sole Bidder / Primer Bidder or Consortium member (if proposed for SITC and Maintenance of HMIS Solution) should have implemented atleast three (3) projects involving HMIS solution implementation in India in last 10 years from the date of issuance of RFP of which one project must have been implemented for 300 bedded hospital and remaining two must have been implemented for 100 bedded hospital each.	- Work order of projects for HMIS Solution - Any client document that clearly specifies the project completion/go-live date and value of HMIS application component. - Note: In case of an ongoing project, the complete project must have achieved UAT at the time of RFP issuance. In this regard, a certificate from the client is required to be submitted. - Any client document that clearly specifies hospital bed capacity where HMIS solution has been deployed.	Yes	Yes	Not Allowed
8.	Sole Bidder / Any member of consortium (Primer Bidder or Consortium member) taking responsibility for SITC and Maintenance of HMIS Solution, should have an active SEI CMMI Level 3 (as on date of issuance of Bid).	Copy of original CMM / CMMi Certificate	Yes	Yes	Not Allowed
9.	Sole Bidder / Any member of consortium (Prime Bidder or Consortium member) taking responsibility other then SITC and Maintenance of HMIS Solution, should be Certified as CMM / CMMi Level 3 Company OR Shall be certified ISO 9001 company. The certification should cover Software Services business of the bidder (as on date of issuance of Bid).	Copy of original CMM / CMMi Certificate OR Copy of certificate showing that ISO 9001 certification covers Software Services	Yes	Yes	Yes
10.	Sole Bidder / Any member of consortium (Primer Bidder or Consortium member) taking responsibility for SITC and Maintenance of HMIS Solution to provide the Manufacturer's Authorization Form (MAF) to be eligible to bid for the proposed HMIS solution.	Letter from OEM as in Section-9 Form – 1.11	Yes	Yes	Not Allowed
11.	Sole Bidder / Any member of consortium (Primer Bidder or Consortium member) or sub-contractor taking responsibility for SITC and Maintenance of PACS Solution to provide the Manufacturer's Authorization Form (MAF) to be eligible to bid for the proposed PACS solution.	Letter from OEM as in Section-9 Form – 1.11	Yes	Yes	Yes

12.	Sole Bidder / Any member of consortium (Primer Bidder or Consortium member) or sub-contractor taking responsibility for SITC and Maintenance of QMS Solution to provide the Manufacturer's Authorization Form (MAF) to be eligible to bid for the proposed QMS Solution.	Letter from OEM as in Section-9 Form – 1.11	Yes	Yes	Yes
13.	Sole Bidder / Any member of consortium (Primer Bidder or Consortium member) or sub-contractor taking responsibility for SITC and Maintenance of IT Hardware & Network Infrastructure to provide the Manufacturer's Authorization Form (MAF) to be eligible to bid for the proposed IT components.	Letter from OEM as in Section-9 Form – 1.11	Yes	Yes	Yes
14.	Sole Bidder / Any member of consortium (Primer Bidder or Consortium member) or sub-contractor taking responsibility should have experience of implementing PACS solution for atleast three (3) sites in India in last 10 years (as on date of issuance of bid) of which one installation should be for minimum 200 bedded hospital in India.	• Work order for PACS solution deployment • Any client document that clearly specifies hospital bed capacity where PACS solution has been deployed. • Any client document that clearly specifies the project completion/go-live date.	Yes	Yes	Yes
15.	Sole Bidder / Any member of consortium (Primer Bidder or Consortium member) or sub-contractor taking responsibility for SITC and Maintenance of IT Hardware & Network Infrastructure should have executed at least one project of SITC based work related to DC/DR IT infrastructure components like server/storage/network equipment and/or LAN/WAN/Wi-Fi infrastructure in last 10 years as on Bid Submission date of value not less than INR 1.5 Crore in India. OR at least two projects of SITC based work related to DC/DR IT infrastructure components like server/storage/network equipment and/or LAN/WAN/Wi-Fi infrastructure in last 10 years as on Bid Submission date of value not less than INR 1 Crore in India. OR at least three projects of SITC based work related to DC/DR IT infrastructure components like server/storage/network equipment and/or LAN/WAN/Wi-Fi infrastructure in last 10 years	• Copy of work order / Contract • Any client document that clearly specifies the project completion/go-live date.	Yes	Yes	Yes

	as on Bid Submission date of value not less than INR 75 lakh in India				
16.	Sole Bidder / Any member of consortium (Primer Bidder or Consortium member) or sub-contractor taking responsibility for SITC and Maintenance of IT Hardware & Network Infrastructure must have local office in Surat or should undertake to open the same in Surat within six months of award of work.	Shop Establishment Certificate issued by Surat Municipal Corporation OR Undertaking on Company's Letterhead duly signed and stamped by authorized signatory to open the office in Surat within 6 months of award of work	Yes	Yes	Yes
17.	Sole Bidder / Any member of consortium (Primer Bidder or Consortium member) or sub-contractor taking responsibility for SITC and Maintenance of QMS solution must have executed at least one project for QMS implementation for any government/semi-government /PSU client or client belonging to Healthcare / Finance /Utility sector.	1 Work order for QMS solution deployment 2 Any client document that clearly specifies hospital bed capacity where QMS solution has been deployed. 3 Any client document that clearly specifies the project completion/go-live date.	Yes	Yes	Yes
18.	The Bidder (All Members in case of a consortium) or sub-contractor should not have been blacklisted by Central Government/State Government or any other autonomous institution presently nor any proceedings for blacklisting has been initiated by Central Government/State Government or any other autonomous institution against the bidder and should not have been convicted for any criminal offence.	Undertaking as per Section-10 Form –1.6	Yes	Yes	Yes

Note:

1. **The number of consortium members cannot exceed two, including the Prime Bidder**
2. **A Bidder applying individually or as consortium member shall not be entitled to submit another application either individually or as a member of any other consortium, as the case may be.**

5. KPIs & SLA

The vendor who is awarded the contract will be measured on certain KPIs and SLAs during the implementation and post implementation phase. This is to ensure that they are accountable for their tasks and only get compensated if their work is of high quality and bears maximum efficiency. SLA defines the terms of the Successful Bidder's responsibility in ensuring the timely delivery of the deliverables and the correctness of the same based on the agreed Performance Indicators as detailed in this section. The Successful Bidder has to comply with Service Levels requirements to ensure adherence to Project timelines, quality and availability of services.

Vendor will provide daily/monthly reports for these parameters. (e.g. system non-availability, application planned and unplanned downtime, security breaches, number of incidents or defects raised/ resolved/pending etc. and other reports). **The Successful Bidder (refer as System Integrator, SI) has to supply software/automated tools to monitor all the KPIs and SLAs under this project.** The bidder shall customize the reports as per the requirement of SMC.

Note: Penalties shall not be levied on the Successful Bidder in the following cases:

- There is a Force Majeure event effecting the SLA which is beyond the control of the Successful Bidder.
- Damages due to any accident / mishap shall be considered as "beyond the control of Bidder".

The purpose of this Service Level Agreement (hereinafter referred to as SLA) is to clearly define the levels of service which shall be provided by the System Integrator to SMC for the duration of this Agreement.

5.1. Definitions

For the purposes of this service level agreement, the definitions and terms are specified in the contract along with the following terms shall have the meanings set forth below:

- "Uptime" shall mean the time period for the specified services / components with the specified technical service standards are available to the user department. Uptime, in percentage, of any component (Non-IT & IT) can be calculated as:
  Uptime = {1- [(Downtime) / (Total Time – Maintenance Time)]} * 100%

- "Downtime" shall mean the time period for which the specified services / components with specified technical and service standards are not available to the user department and excludes downtime owing to Force Majeure & Reasons beyond control of SI.

- "Incident" refers to any event / abnormalities in the functioning of the Services specified as part of the Scope of Work of the Systems Integrator that may lead to disruption in normal operations of the proposed Solution.

- "Resolution Time" shall mean the time taken (after the incident has been reported), in resolving (diagnosing, troubleshooting and fixing) or escalating (to the second level or to respective vendors outside the scope of current RFP, getting the confirmatory details about the same from the vendor and conveying the same to the end user), the services related troubles during the first level escalation.

5.2. Measurement of SLA

The SLA metrics provided specifies performance parameters as baseline performance, lower performance and breach. All SLA calculations will be done on monthly basis. The monthly O&M cost shall be calculated as "Cost of that particular year / 12".

The SLA also specifies the penalties for lower performance and breach conditions. Payment to the SI is linked to the compliance with the SLA metrics.

The aforementioned SLA parameters shall be measured as per the individual SLA parameter requirements and measurement methods, through appropriate SLA Measurement tools to be provided by the SI and audited by SMC or its appointed Consultant for accuracy and reliability.

SMC shall also have the right to conduct, either itself or through any other agency as it may deem fit, an audit / revision of the SLA parameters/ penalty. The SLAs defined, shall be reviewed by SMC on an annual basis after consulting the SI, Project Management Consultants and other experts. All the changes would be made by SMC after consultation with the SI and might include some corrections to reduce undue relaxation in Service levels or some corrections to avoid unrealistic imposition of liquidated damages/ penalties, which are noticed after project has gone live.

Total liquidated damages to be levied on the SI shall be capped at 10% of the total contract value. However, SSCDL would have right to invoke termination of the contract in case the overall liquidated damages equals 10% of total contract value.

#	Performance Area	SLA	Penalty
Project Implementation SLA			
1	Delay in Delivery of Project scope	As per RFP	Any delay in the delivery of the project (solely attributable to vendor) would attract a penalty of 0.2% per day of the CAPEX value of that particular item. Total penalty applicable under this clause shall be limited to 10% of the value of the equipment/device in software or hardware to be supplied, installed and commissioned for which Request Order is placed If the penalty reaches 10% of the total contract value, Authority may invoke termination clause.
Uptime of all Data Center Equipment, Network Equipments& Application			
1	Equipment Availability (EA) Uptime (%) = [Total minutes in a month –Planned downtime – Total down time(min) in a month]*100/[Total minutes in a month - Planned downtime] X= [100-(uptime value)]	>99%	No Penalty
		<99 % to >=97%	Penalty of 0.5% of purchase cost for that particular equipment
		< 97%	Penalty of X*0.5% of purchase cost for that particular equipment
2	Application Availability (EA)	>99%	No Penalty

	Uptime (%) = [Total minutes in a month –Planned downtime – Total down time(min) in a month]*100/[Total minutes in a month - Planned downtime] X= [100-(uptime value)]	<99 % to >=97%	Penalty of 0.5% of purchase cost for software
		< 97%	Penalty of X*0.5% of purchase cost for software
3	Number instance the equipment / application is down during a month	Upto 2 instances	No Penalty
		>2 instances	additional penalty per instance of 25% of total penalty levied on that particular equipment in a month will be applicable
Performance Parameter for Servers			
1	Average CPU Utilization >70% for more than 15 minutes in a single stretch	1 instance	No penalty
		2-5 instances	Penalty of Rs. 5000 per incident
		> 5 instances	Penalty of Rs. 10,000 per incident
2	Memory Utilization >70% for more than 15 minutes in a single stretch	1 instance	No penalty
		2-5 instances	Penalty of Rs. 5000 per incident
		> 5 instances	Penalty of Rs. 10,000 per incident
3	Disk Utilization >70% for more than 15 minutes in a single stretch	1 instance	No penalty
		2-5 instances	Penalty of Rs. 5000 per incident
		> 5 instances	Penalty of Rs. 10,000 per incident
Mean Time To Repair (MTTR) - MTTR shall be monitored on the time taken between logging of complain against the equipment & its closure			
1	Network Equipments [The call must be attended immediately on reporting by the user and problem must be resolved within 3 working hours of reporting]	<= 3 Hrs	No penalty
		>3 Hrs to <= 4 Hrs	Penalty of Rs 250 for each hour of delay
		>4 Hrs	Rs. 500 for each day's delay whichever is higher.
2	Desktops, printers and other equipment installed under e-Health Project [The call must be attended immediately on reporting by the user and problem must be resolved within 6 working hours of reporting]	<= 6 Hrs	No penalty
		>6 Hrs to <= 8 Hrs	Penalty of Rs 250 for each hour of delay
		>8 Hrs to <= 10 Hrs	Penalty of Rs 500 for each hour of delay
		>10 Hrs	Rs. 2000 for each day's delay whichever is higher.

5.3. Security breach SLA

Note – This SLA for Security Breach is applicable over and above the SLAs mentioned in above table.

Definition	Security of the overall System is quite important and Successful Bidder shall be required to ensure no compromise is done on the same. Security Breach types considered for this SLA are– • Availability of access of System or data to any other user than those authorized by SSCDL/SMC/End user department and provided passwords • Any incidence that violates security policy resulting in, unauthorised access to system/data, denial of service/disruption, etc. • Hacking on by any unauthorized user or any other privacy rule is broken as per Govt. of India guidelines
Service Level Requirement	Security compliance of the system should be 100%
Measurement of Level Service Parameter	Any reported security breach shall be logged into the SLA Management solution as a security breach and same should be resolved under Priority level 1.
Penalty	For every security breach reported, there shall be a penalty of INR 2,00,000/- or lead to termination of contract

1 The System Integrator will comply with the directions issued from time to time by SSCDL and the standards related to the security and safety in so far as it applies to the provision of the Services.
2 The System Integrator shall also comply with the information technology security and standard policies in force from time to time by SSCDL/SMC or as recommended by any statutory authority.
3 The System Integrator shall use reasonable endeavours to report forthwith in writing to all the partners / contractors about the civil and criminal liabilities accruing due to by unauthorized access (including unauthorized persons who are employees of any Party) or interference with SSCDL's data, facilities or Confidential Information.
4 The System Integrator shall upon request by SSCDL or his/her nominee(s) participate in regular meetings when safety and information technology security matters are reviewed.
5 System Integrator and its partners / sub-contractors shall promptly report in writing to each other and SSCDL any act or omission which they are aware that could have an adverse effect on the proper conduct of safety and information technology security at SSCDL's Facilities.
6 System Integrator and its partners/sub-contractors shall be required to take necessary security measures so that the application and database is secured from unauthorized access, data breach and other security vulnerabilities.
7 Necessary security should be provisioned at application, database and network level to prevent unauthorized access to local resources.

5.4. Breach in supply of Onsite Manpower

1 All persons deputed shall be on the payroll of the Bidder's/ consortium partner's whose project experience is considered for evaluation and mentioned in R&R (Roles & Responsibilities) defined in Consortium Agreement. If required, the resource will be interviewed/screed using any screening procedure by SMC/SSCDL and/or is representative prior to deputation at

SMC/SSCDL. The bidder would also remove a person from its staff at SMC/SSCDL if instructed to do so by the SMC/SSCDL within one month and provide suitable replacement with minimum overlap of 15 days.

2 The bidder shall depute a person on its staff at site only after the person is interviewed/ screened using any selection procedure by SMC and/or its any representative(s) and the sanction for the same is given in writing. The bidder would also remove a person from its staff at sites viz. SMC, SMIMER, Maskati Hospital or Health Centres if instructed to do so by the SMC within one month and provide suitable replacement with minimum overlap of 15 days. All persons deputed shall be on the payroll of the Bidder's organization. All the staff proposed to be deployed at site should be full time employees of the bidder's organization at the time of bid submission.

3 The person deployed for the project at SMC/SSCDL will inform about any leave of absence to SMC/SSCDL.

4 In case of personnel deputed at SMC/SSCDL by bidder as per the resource deployment plan or during support period is on a leave of absence for more than a week,

   i. then a competent substitute, fully conversant with the processes at SMC/SSCDL will have to be provided by the bidder. Thus, the bidder is required to keep other personnel employed but not deputed at SMC/SSCDL so that the vacancy of the key personnel could be kept filled in.

   ii. if the substitute is not provided for more than 5 days than such leaves after fifth day will be considered as if a person is not deployed by the bidder and monetary deduction may be made accordingly.

5 The personnel of implementation team as during the implementation and post implementation period will observe the work-time of 8 hours per day, and follow SMC's calendar; but they may have to put in extra time whenever called for by SSCDL without any additional charges. The bidder shall make necessary arrangements during post implementation support to meet defined SLAs.

6 The leaves of key personnel as per the resource deployment plan should not affect the deliverables as per scheduled timelines.

7 Twelve leaves of absence per year will be admissible for each position; additional leaves would be liable to deductions.

8 A schedule of up to 12 festival/national holidays per year for the staff will have to be provided by the bidder and get it approved by SMC/SSCDL in advance for the entire year. For the current year the list is to be provided as soon as the contract comes into effect. Any change thereat will have to be effected only after prior permission of SMC/SSCDL.

9 In case of change in its team composition owing to attrition the bidder shall ensure a reasonable amount of time-overlap in activities to ensure proper knowledge transfer and handover/takeover of documents and other relevant materials between the outgoing and the new member. The exiting team member should be replaced with equally or more competent personnel.

10 The bidder shall ensure minimum team strength during the support period. Failure to deploy suitably qualified resources will lead to deductions to payable support charge on a prorate basis considering the total monthly support charge and total no. of resources required to be deployed.

11 Non-adherence to above clauses will be considered as Absence of employee. The bidder shall ensure minimum team strength as defined in RFP. Failure to deploy suitably qualified

resources will lead to deductions as per below mentioned table. Additionally, penalty may be levied for delays and non-performance attributable to bidder organization or deployed staff.

#	Role	Deduction per resource/day
1	Project Manager	3000
2	Application Developer	1500
3	Hardware and Network Engineer	1000
4	Helpdesk Support	1000
Note: There is NO CAPPING on the applicable deduction for non-availability of resources as per the above table.		

12 In case the minimum resources are not available, penalty will be charged over and above the deductions as specified above at the following rate for the respective positions
   i. 25% of deduction amount as penalty for delay upto one month
   ii. 50% of the deduction amount as penalty for delay of more than one month upto two months
   iii. 100% of the deduction amount as penalty for delay of more than two months
   iv. This will be applied even for positions that fall vacant during the contract period and also for such period during which resource was not available due to leave of absence for more than 5 days and substitute is not provided.

13 The persons deployed by the bidder shall not claim nor shall be entitled to pay, perks, and other facilities admissible to casual, ad-hoc, regular/confirmed employees of SMC/SSCDL during the contract period or, after expiry of the contract.

14 The bidder's personnel shall not divulge or disclose to any person, any details of office, operation process technical know-how, administrative/organizational matters as all are confidential/secret in nature.

15 The bidder's personnel's working should be polite, cordial, positive and efficient, while handling the assigned work and his/her actions shall promote goodwill and enhance the image of SMC/SSCDL. The bidder shall be responsible for any act of indiscipline on the part of persons deployed.

16 The bidder shall be solely responsible for the redressal of grievances/resolution of disputes relating to persons deployed. SMC/SSCDL shall, in no way, be responsible for settlement of such issues whatsoever.

17 The transportation, food, medical and other statutory requirements in respect of personnel of the service provider shall be the responsibility of the bidder.

5.5. Support Service Level Agreements and Penalty

SLAs will be measured during the support phase and implementation phase as defined in the RFP.

Severity levels are defined using two dimensions: impact and urgency

- Impact is classified into 4 categories:
  - **Extensive**: Either no or extremely limited workaround is available requiring very intense incident support; Extremely inconvenient to the SMC OR >10% of nodes impacted by incident; More than one module is impacted
  - **Significant**: Limited workaround available that requires intense level of incident support; very inconvenient to the SMC and high incident occurrence risk OR >5% &<=10% of nodes impacted by incident

- **Moderate**: >2% &<=5% of nodes impacted by incident
- **Minor**: <=2% of nodes impacted by incident

- Urgency is classified into 4 categories:
  - **Critical**: If not dealt with immediately the service will escalate many times over within a short time-period or Incident has Tax, Legal or Statutory impact
  - **High**: If not dealt with in the very near future (within the half day) the service will escalate severely till solved
  - **Medium**: If not dealt with in the near future (within 2 days) it will impede business/ IT processes
  - **Low**: All others

Severity Levels (P1/P2/P3/P4) are decided based on these two dimensions through the following grid:

	Impact			
Urgency	**Extensive**	**Significant**	**Moderate**	**Minor**
Critical	P1	P1	P1	P1
High	P1	P2	P2	P2
Medium	P2	P2	P3	P4
Low	P3	P3	P3	P4

Applications Support	**Expected**	**Minimum**	**Measurement Window**	**Penalty (% of relevant implementation milestone/monthly support cost)**
Incident Response Time				
P1 Severity Level Incidents Responded within 15 mins	99.50%	95.00%	Monthly	0.5%
P2 Severity Level Incidents Responded within 30 mins	99.50%	95.00%	Monthly	0.5%
P3 Severity Level Incidents Responded within 90 mins	99.50%	95.00%	Monthly	0.5%
P4 Severity Level Incidents Responded within 120 mins	99.50%	95.00%	Monthly	0.5%
Applications Support	**Expected**	**Maximum Resolution Time**	**Measurement Window**	**Penalty (% of Monthly support cost)**
Incident Resolution Time				
P1 Severity Level Incidents Resolved as agreed	2 Hours	4 Hours	Monthly	1% (for every P1 incidents breaching SLA) beyond which

				0.1% per hour per incident
P2 Severity Level Incidents Resolved as agreed	8 Hours	8 Hours	Monthly	1% (for three P2 incidents breaching SLA) beyond which 0.05% per hour per incident
P3 Severity Level Incidents Resolved as agreed	16 Hours	16 Hours	Monthly	0.5% (for five P3 incidents in a month) beyond which 0.02% per hour per incident
P4 Severity Level Incidents Resolved as agreed	32 Hours	32 Hours	Monthly	0.5% (for ten P4incidents in a month) beyond which 0.02% per hour per incident

The SLAs are subject to review and revision by SSCDL/SMC at regular intervals.

5.6. Other Penalty

1. In case the overall support of the bidder to the SSDCL is not found sufficient or satisfactory, the same will also amount to failure and attract a penalty generally up to 10% of the consideration of Contract. The penalty will be proportionate to the time period for which the support is not found to be sufficient or satisfactory.
2. In case the bidder fails to be compliant with SLAs requirements at regular intervals repeatedly as mentioned above, penalty will be imposed generally up to 10% of the consideration of contract depending upon the nature of failure or the short-fall.
3. In case a serious bug/ flaw/ error is found in a system, or the system is not found working as intended/ satisfactorily/ properly due to the software developed then in that case, generally a penalty of up to 10% of the consideration of contract will be imposed. The penalty will be proportionate to the delay in amending the bug / flaw / error, etc. after the date of report.
4. In case the support of the bidder's staff to the SMC is not found sufficient or satisfactory, the same will also amount to failure and attract a penalty generally up to 10% of the consideration of Contract. The penalty will be proportionate to the time period for which the support is not found to be sufficient or satisfactory.
5. In case of unavailability of the Application for the lack of proper configuration /administration / maintenance of the system by the bidder's staff at SMC, a direct penalty of 10% of the consideration of Contract will be imposed, charged.
6. In case the bidder fails to deliver service as depicted in the scope of work, penalty will be imposed generally upto 10% of the consideration of contract depending upon the nature of failure or the short-fall.
7. The cumulative value of penalties stated under the above clauses (1) to (6) could be upto 10% of the consideration of the contract. Before levy of this penalty, SSCDL/SMC shall issue the notice to SI and allow them the time to represent their justification/ resolution of any shortcomings. In case, the SI fails to provide the satisfactory justification / resolution within the time period, SSCDL/SMC shall levy the penalty.
8. The decision of CEO/Chairman of SSCDL will be final and binding in case of the percentage of penalty to be applied, imposed in all the above cases to the bidder.

In case of continued failure or short-falls from the established standard, the contract shall be terminated and no payments will be made nor will any damages be paid to the bidder besides forfeiting Security Deposit.

6. Project Milestone and Payment Schedules

6.1. PROJECT MILESTONE

Selected SI is required to complete the work in phased manner as per the below mentioned table. Each phase must be completed as per the time stipulated for its completion. The delay in delivery will attract delayed penalty as mentioned in this RFP. The work start date will be considered as the date of issuance of LOI/work order.

#	Milestone/ Months	Project Execution Stage														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Project Plan, site visits etc.	Project Plan, site visits, schedule etc.														
2	Project execution at site - Phase I - SMIMER		Networking & Servers													
3	Project execution at site - Phase I - Health Centres in East Zone (A) of SMC			Networking												
4	Project execution at site - Phase I SMIMER and Health Centres in East Zone (A) of SMC		e-Health System (SRS, customization/ development & UAT), PACS, QMS, Computer Hardware etc.													
5	Data Migration into the e-Health System - Phase I					Data Migration - Phase I										
6	Trian Run, Hand-Holding at site - Phase I - SMIMER and Health Centres in East Zone (A) of SMC						Trial Run, Go-Live of Phase-I, Interoperability, etc.									
7	Project execution at site - Phase II – Maskati Hospital & Remaining Health Centres		Networking in the phase II.													
8	Project execution at site - Phase II - Maskati Hospital &		e-Health System (SRS, customization/development & UAT)													

	Remaining Health Centres															
9	Project execution at site - Phase II - Maskati Hospital & Remaining Health Centres						Computer Hardware, etc.									
10	Trial Run &Complete Go-Live										Data migration, Trial Run, Complete Go-Live, Interoperability, etc.					
11	Hypercare Support, Documentation, Handholding & Handing over													Hypercare Support, Documentation, Handholding & Handing over		

The below mentioned table defines at broad level various outcomes and activities required to be completed by the bidder against each milestone as defined in the above-mentioned table. The bidder will be required to complete all relevant activities that may not be explicitly mentioned in the below mentioned table to achieve the outcomes of respective milestones.

Milestone No.	Milestone Name	Activity to be completed
1	Project Plan	• Detailed assessment of the functional requirements for the services described in the RFP • Requirement gathering from end users and other stake holders • Preparation of AS-IS process documents &TO-BE process document • System Requirement Specifications (SRS) study for entire solution covering HMIS, PACS, QMS, EMS, Mobile Applications, Web portals, etc. • Implementation plan for entire solution covering HMIS, PACS, QMS, EMS etc. • Interoperability concept among SMIMER & health centres • Mobile application & web site/portal designing & development plan& deployment strategy • Data collection, gap analysis, customization, testing, training & implementation plan • Post Go-Live operation & maintenance plan • Plan for User acceptance testing (UAT) of the HMIS, PACS, QMS, EMS, Mobile Applications, Web portals, etc.

2	Network & Server Implementation in Phase I	• SITC of active and passive network infrastructure at SMIMER. • SITC of Server and Storage and make it ready for hosting centralized HMIS, PACS, QMS, EMS, Mobile application, Web portals, etc. on it. • Establishment of Server room at SMIMER and installation of local servers in it.
3	Network Implementation in phase I –Health Centres in East Zone (A)	• SITC of active and passive network infrastructure at Health Center of East Zone (A)
4	SRS, Customization & UAT Stage in Phase I	• Customization of HMIS, PACS, QMS,EMS, Mobile Applications, Web portals, as per inputs from SMC during the SRS/Gap Analysis. • User acceptance testing (UAT) of e-health solution covering HMIS, PACS, QMS, Mobile Applications, Web portals, etc. • SITC of Computer, Printer & peripherals.
5	Data Migration into the e-Health System - Phase I	Migration of patient & hospital data of Phase I – SMIMER & health centres at East Zone of SMC into the e-Health System.
6	Training, Trial Run, FAT, Hand Holding & Go-live of Phase I	• Training of users. • Trial run of the e-Health System at SMIMER and Health Centres at East Zone of SMC and testing of interoperability among them. • Go-live of the Phase-I.
7	Networking Implementation in phase II	• Establishment of wired & wireless network infrastructure (LAN & Wi-Fi System) at Maskati hospital & wired network infrastructure (LAN System) at remaining health centres at other zones of SMC.
8	SRS, Customization & UAT Stage in Phase II	• System Requirement Specifications (SRS) study for HMIS, PACS, Mobile Applications, Web portals. • Finalization of computer hardware with SSCDL/HSCC. • Customization of HMIS, PACS, Mobile Applications, Web portals as per inputs from SMC during the SRS/Gap Analysis. • User acceptance testing (UAT) of the HMIS, PACS, Mobile Applications, Web portals.
9	Computer Hardware for Phase II	Supply & Installation of Computer Hardware.
10	Trial Run & Complete Go-Live	• Migration of relevant data into the e-Health System. • Training of users.

		• Trial run of the e-Health System at Maskati hospital and remaining Health Centres and testing of interoperability among them as well as phase I hospital & health centres i.e., SMIMER and health centres in East Zone of SMC. • Final Acceptance Testing of the overall e-Health System.
11	Hyper-Care, Documentation, Hand-holding& Handing over	• Documentation of the project. • Commencement of Hand-holding of the e-Health project. • Handing over of the project to the SMC. • Warranty support for the solution will be provided for the 3 months Hyper Care Support period or until all defects in the Solution for which the Bidder shall be responsible are resolved, whichever is longer.
12	Operation & Maintenance Stage	• Operation & Maintenance of solution as per RFP. • Deployment of onsite resources as per RFP.

6.2. PAYMENT SCHEDULE

6.2.1 Implementation cost for e-Health Applications

Payment for various items/ solution components as per Price Bid TABLE -B - Software Application will be released as per the following payment schedule on completion of Respective Milestone.

#	Completion of Milestone #	Payment (in Percentage)
1.	Milestone 4	10%
2.	Milestone 6	25%
3.	Milestone 8	10%
4.	Milestone 10	20%
5.	Milestone 11	25%
6.	Successful completion of 1st year after Project "Go Live"	2%
7.	Successful completion of 2nd year after Project "Go Live"	2%
8.	Successful completion of 3rd year after Project "Go Live"	2%
9.	Successful completion of 4th year after Project "Go Live"	2%
10.	Successful completion of 5th year after Project "Go Live"	2%

Note:

1. This % implies the percentage of cost as specified by the bidder in price bid Table B – Software Application
2. Monthly Progress Reports/MIS to be submitted every month or as and when desired by SMC indicating the activities remaining/completed and progress as against the scheduled tasks / activities

6.2.2 Hardware Installation & Commissioning

Payment for various items/ solution components as per Price Bid TABLE -A -IT Infrastructure Components will be released as per the following payment schedule on completion of Respective Milestone.

#	Completion of Milestone #	Payment (in Percentage)
1.	Satisfactory delivery and acceptance of respective item/equipment (as per the Request Order) and after submission of the invoice.	45% of CAPEX of respective item/equipment
2.	Satisfactory competition of Installation of respective items/ equipment and after, submission of the invoice.	20% of CAPEX of respective item/equipment
3.	UAT and Go Live of Complete RO (Testing and Commissioning)	25% of total CAPEX of Request order
4.	Successful completion of 1st year after Project "Go Live"	2% of total CAPEX of Request order
5.	Successful completion of 2nd year after Project "Go Live"	2% of total CAPEX of Request order
6.	Successful completion of 3rd year after Project "Go Live"	2% of total CAPEX of Request order
7.	Successful completion of 4th year after Project "Go Live"	2% of total CAPEX of Request order
8.	Successful completion of 5th year after Project "Go Live"	2% of total CAPEX of Request order

6.2.3 Payment Schedule for Onsite Technical Manpower

Payment for technical manpower as per price bid TABLE -C-Technical Manpower will be released on quarterly basis based on SLAs defined in the RFP document post successful completion of Hypercare period.

7. Instruction to Bidders

7.1. Purpose of Bid Document

1. The purpose of this tender is to select an Implementing Agency for e-Health Project. This document provides information to enable the bidders to understand the broad requirements to submit their 'Bids'.
2. In case a bidding firm possesses the requisite experience and capabilities required for undertaking the work, it may participate in the selection process either individually (the "Sole Firm") or as lead member of a consortium of firms (the "Prime Bidder") in response to this invitation. The term "Bidder" means the Sole Firm or the Prime Bidder, as the case may be.
3. The manner in which the Proposal is required to be submitted, evaluated and accepted is explained in this RFP. The detailed scope of work is provided in this RFP document.
4. Bidders are advised to study all instructions, forms, terms, requirements and other information in the Bid Documents carefully.
5. Submission of bid shall be deemed to have been done after careful study and examination of the Bid Document with full understanding of its implications.
6. The response to this Bid Document should be full and complete in all respects. Failure to furnish all information required by the Bid Documents or submission of a proposal not substantially responsive to the Bid Documents in every respect will be at the bidder's risk and may result in rejection of its Proposal.
7. Additionally, proposals of only those Bidders who satisfy the Conditions of Eligibility, stated herein, will be considered for evaluation by SSCDL.

7.2. Proposal Preparation Cost

1. The bidder is responsible for all costs incurred in connection with participation in this process, including, but not limited to, costs incurred in conduct of informative and other diligence activities, participation in meetings/discussions/presentations, preparation of proposal, in providing any additional information required by SSCDL to facilitate the evaluation process, and in negotiating a definitive Contract or all such activities related to the bid process. The department will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
2. This Bid Document does not commit the SSCDL to award a contract or to engage in negotiations. Further, no reimbursable cost may be incurred in anticipation of award. All materials submitted by the Bidder shall become the property of SSCDL/ SMC and may be returned at its sole discretion.

7.3. Bid Availability & Validity

Bid documents can be downloaded from the web sites "https://smc.nprocure.com" upto the date and time mentioned in the Online RFP Notice "**SSCDL-eHealth-RFP-02-2022**".

The proposal should be valid for acceptance for a minimum period of 180 days from the Bid Due Date/Bid Submission Date (the "**Proposal Validity Period**"). If required, Authority may request the bidder to have it extended for a further period.

7.4. Online Pre-bid Queries

A prospective Bidder requiring any clarification on the RFP Document may submit his queries, via email, to the following e-mail id on or before 27.06.2022 up to 16:00 hrs. Email Id for submission of queries: it@suratsmartcity.com

The queries should necessarily be submitted in the following format:

Bidders Request for Clarification			
Name and Address of the Organization submitting request		**Name and Position of Person submitting request**	**Contact Details of the Organization / Authorized Representative**
			Tel: Mobile: Fax: Email:
#	**RFP Document Reference (Section No., Page No.)**	**Content of the RFP requiring clarification**	**Clarification Sought**

Queries submitted post the above-mentioned deadline or which do not adhere to the above-mentioned format may not be considered.

7.5. Amendment of RFP Document

1. At any time before the deadline for submission of bids, the SSCDL, may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the RFP Document by an amendment.
2. The bidders are advised to visit the http://suratsmartcity.com/Tenders and https://smc.nprocure.com on regular basis for checking necessary updates. SSCDL also reserves the rights to amend the dates mentioned in this RFP for bid process
3. In order to afford prospective Bidders reasonable time in which to take the amendment into account in preparing their bids, the SSCDL may, at its discretion, extend the last date for the receipt of Bids.

7.6. Conflict of Interest

1. A “Conflict of Interest” is any situation that might cause an impartial observer to reasonably question whether Bidder actions are influenced by considerations of their firm’s interest at the cost of Government. Bidders shall not have a conflict of interest that may affect the Selection Process or the scope (the “Conflict of Interest”). Any Bidder found to have a Conflict of Interest shall be disqualified.
2. The SI shall disclose to the SSCDL in writing, all actual and potential conflicts of interest that exist, arise or may arise (either for the Systems Integrator or its Team) in the course of performing Services as soon as it becomes aware of such a conflict.
3. SSCDL requires that the Bidder provides professional, objective, and impartial advice and at all times hold the SSCDL’s interest’s paramount, avoid conflicts with other assignments or its own interests, and act without any consideration for future work.

7.7. Consortium Conditions

1. The number of consortium members cannot exceed two, including the Prime Bidder. Please refer below for the Role & Responsibility bifurcation in case of consortium.

2. A Bidder applying individually or as consortium member shall not be entitled to submit another application either individually or as a member of any other consortium, as the case may be.
3. Consortium members must provide a Memorandum of Understanding (MoU) covering above points and showing their intention to enter into such an Agreement at the time of bidding along with Pre-Qualification Bid.
4. A Bidding Consortium is required to nominate a Prime Member. The formation of the consortium including identification of Prime member and role and responsibilities of each member/s shall be supported by Memorandum of Agreement and Power of Attorney signed by all the members on a stamp paper of INR 300/-.
5. The successful bidder (SI) shall be required to enter into agreement with all member/s of Consortium Members specifying following points in the Agreement. These points shall also be captured in MoU
    - Identity Prime Member and Power of Attorney in favor of Prime Member.
    - Roles and responsibilities of each consortium partner, the identification of the lead partner, and providing for joint and several liability for each partner/s.
    - Roles & Responsibility Bifurcation Matrix as per FORM –1.15.
    - All consortium members would be available throughout the Contract Period.
    - Each member of the Consortium shall be jointly and severally liable for the due implementation and comprehensive onsite warranty support of the Project.
    - The role and responsibility of any member must be commensurate with the technical/financial capabilities that such member is contributing towards meeting the qualification criteria. Each consortium member/s is liable to contribute resources in terms of knowledge, skills and trained manpower commensurate with its role and responsibilities during the Contract Period.
    - The Consortium Agreement must also state that the period of the Agreement would coincide with the Contract period. Consortium must continue to be in existence during the period of the contract and that any change will be subject to approval of the Authority (SSCDL) only.
    - The final contract between the consortium members (The Consortium Contract) would be available for legal vetting and open to suggestions by the SSCDL. SSCDL will suggest binding corrections if it finds that such contract does not meet its requirements and interests as per the Tender in letter and spirit.
    - The Agreement should be on stamp paper and notarized. The signatories must be duly authorized.
    - Any modification in roles and responsibilities between consortium members during Contract Period shall be allowed only after approval from SSCDL. Any changes and deviation of roles and responsibilities of consortium members during the execution, and comprehensive onsite warranty support of this Project without prior approval of Authority shall be viewed seriously by the SSCDL as it can affect an important public service. Such unilateral action by the SI shall entitle SSCDL to take appropriate action including considering it an Event of Default under this Contract leading to consequences including termination with appropriate notice.
    - Any Dispute arising during Contract Period between the Consortium Member/s shall be resolved amicably without adversely impacting Project Implementation and Operation. If in SSCDL's opinion, Dispute between Consortium members adversely impacting implementation and operation of the Project then Authority may its sole discretion in the

interest of the Project Terminate the Contract after due process and/or provide a binding solution.

- In case SSCDL Intends to proceed for Termination on account of SI Event of Defect and /or unresolved disputes between the Consortium Members, the Consortium Member shall be jointly and severally liable for Implementation and comprehensive onsite warranty support of project at Agreed prices and payment terms specified in this Tender till Authority or any new agency appointed by it takes over the Project
- SSCDL reserves the right to reject the Bid in case of change in the constitution of the consortium after the submission of Bid and before the execution of the Agreement.

7.8. Right to amendment of the project scope

1. SSCDL retains the right to amend the scope of work or amend the program for service delivery at any time and without assigning any reason. SSCDL makes no commitments, express or implied, that the full scope of work as described in this RFP will be commissioned.
2. The bidder's technical and commercial proposals received in this process may result in SSCDL selecting to engage with the bidders' in further discussions and negotiations toward execution of a contract including finalization of the scope elements. The commencement of such negotiations does not, however, signify a commitment by the SSCDL to execute a contract or to continue negotiations. SSCDL may terminate negotiations at any time without assigning any reason.

7.9. SSCDL rights to terminate the selection process

1. SSCDL may terminate the RFP process at any time and without assigning any reason. SSCDL makes no commitments, express or implied, that this process will result in a business transaction with anyone.
2. This RFP does not constitute an offer by SSCDL.
3. The bidder's participation in this process may result in SSCDL selecting the bidder to engage in further discussions and negotiations toward execution of a contract. The commencement of such negotiations does not, however, signify a commitment by the SSCDL to execute a contract or to continue negotiations. SSCDL may terminate negotiations at any time without assigning any reason.

7.10. Governing Law and Jurisdiction

1. The Bidding Process shall be governed by, and construed in accordance with, the laws of India and the Courts at Surat shall have exclusive jurisdiction over all disputes arising under, pursuant to and/or in connection with the Bidding Process.

7.11. Right to reject any proposal

1. Notwithstanding anything contained in this RFP, SSCDL reserves the right to accept or reject any Proposal and to annul the Selection Process and reject all Proposals, at any time without any liability or any obligation for such acceptance, rejection or annulment, and without assigning any reasons therefore.

2. Besides other conditions and terms highlighted in the Tender Document, bids may be rejected under following circumstances:

General rejection criteria

i Conditional Bids;

ii If the information provided by the Bidder is found to be incorrect / misleading / fraudulent at any stage / time during the Tendering Process;

iii Any effort on the part of a Bidder to influence the bid evaluation, bid comparison or contract award decisions;

iv Bids received after the prescribed time & date for receipt of bids;

v Bids without signature of person (s) duly authorized on required pages of the bid;

vi Bids without power of attorney/ board resolution or its certified true copy.

Technical Rejection criteria

i Bidders not complying with the Eligibility Criteria given in this Tender document

ii Technical Bid containing commercial details;

iii Revelation of Prices in any form or by any reason before opening the Commercial Bid;

iv Failure to furnish all information required by the Tender Document or submission of a Bid not substantially responsive to the Tender Document in every respect;

v Bidders not quoting for the complete scope of work as indicated in the Tender Documents, addendum /corrigendum (if any) and any subsequent information given to the Bidder;

vi Bidders not complying with the Technical and General Terms and conditions as stated in the Tender Documents;

vii The Bidder not confirming unconditional acceptance of full responsibility of providing services in accordance with the scope of work and Service Level Agreements of this Tender;

Commercial Rejection Criteria

i Incomplete price Bid;

ii Price Bids that do not conform to the Tender's price bid format;

iii Total price quoted by the Bidder does not include all statutory taxes and levies applicable;

iv If there is an arithmetic discrepancy in the commercial Bid calculations the Technical Committee shall rectify the same. If the Bidder does not accept the correction of the errors, its Bid may be rejected.

3. Misrepresentation/ improper response by the Bidder may lead to the disqualification. If such disqualification / rejection occurs after the Proposals have been opened and the highest-ranking Bidder gets disqualified / rejected, then SSCDL reserves the right to consider the next best Bidder, or take any other measure as may be deemed fit in the sole discretion of SSCDL, including annulment of the Selection Process.

7.12. Bid Fee and Earnest Money Deposit (EMD) and amount

1. The bidder should pay non-refundable Bid Fee of Rs.21,240 [Rs. 18,000 + 18% GST] by Demand Draft or Banker's Cheque in favor of Surat Smart City Development Limited, from Nationalized or Scheduled Banks except Co-operative Banks, payable at Surat. The Bid fees shall be in the form of a Demand Draft / Banker's Cheque.
2. GST Registration Number for SURAT SMART CITY DEVELOPMENT LIMITED (SSCDL) is "24AAWCS9229G1ZR"
3. The bidder should also pay EMD of Rs. 25,00,000 (Rupees Twenty-Five Lakhs Only) in the form of Demand Draft / Banker's Cheque in favour of "Surat Smart City Development Limited".

4. No interest will be payable by the SSCDL on the Earnest Money Deposit.
5. In case bid is submitted without EMD or Bid fees as mentioned above then SSCDL reserves the right to reject the bid without providing opportunity for any further correspondence to the bidder concerned.
6. The EMD of unsuccessful Bidders will be returned by the Authority, without any Interest, as promptly as possible on acceptance of the Proposal of the Selected Bidder or when the Authority cancels the Bidding Process.
7. The Selected Bidder's EMD will be returned, without any interest, upon the Selected Bidder signing the Agreement and furnishing the Security Deposit / Performance Guarantee in accordance with the provision thereof
8. The decision of SSCDL regarding forfeiture of the EMD and rejection of bid shall be final & shall not be called upon question under any circumstances.
9. The EMD may be forfeited:
   - If a Bidder withdraws their bid or increases their quoted prices during the period of bid validity or its extended period, if any; or
   - In the case of a successful bidder, if the Bidder fails to sign the Contract or to furnish Performance Bank Guarantee within specified time
   - During the bid process, if a Bidder indulges in any such deliberate act as would jeopardize or unnecessarily delay the process of bid evaluation and finalization.
   - During the bid process, if any information found wrong / manipulated / hidden in the bid.

7.13. Sealing, Marking and Submission of Bids

Bidders are required to submit their bids in separate sealed envelopes as per instructions given below:

PART-1: BID FEES AND EMD

Part 1: **Bid Fees and EMD** with complete details and supporting documents in **"Envelop 1"** super scribed with Tender No, Due Date and RFP Name – **"Envelop-1: RFP for selection of System Integrator for e-Health".**

PART-2: TECHNICAL BID

Part 2: **Pre-Qualification Criteria, Technical Evaluation Criteria and Technical proposal soft copy in Pen drive/ USB stick** with complete details and supporting documents in **"Envelop 2"** super scribed with Tender No, Due Date and RFP Name **"Envelop-2: RFP for selection of System Integrator for e-Health".** The proposal shall also consist with all supporting documents, RFP Copy, Addendum & Corrigendum, if any.

The large envelope / outer envelope containing above envelopes must be sealed and super scribed and shall be sent as under

Details to be mentioned exactly on sealed envelop	
Tender Details • **RFP No.:**SSCDL-eHealth-RFP-02-2022 • **Tender name:** Selection of SI for Development of Integrated IT Infrastructure (HMIS, PACS, QMS, Network Infrastructure) for Hospital & Health Center under SMC	To, **The Chief Accountant,** **Surat Municipal Corporation,** Mahanagar Seva Sadan, GordhandasChokhawala Marg, Muglisara, Surat – 395 003, Gujarat, INDIA.

• **Last date of Technical Bid Submission:** 11.07.2022	

1. The Bid must be sent strictly by **Postal Speed Post or Registered Post AD only** so as to reach on or before 11.07.2022 up to 18.00 hrs. ***Bids received in any other manner or mode (like courier, in person, etc.) will not be considered. SSCDL won't be responsible for postal delays.***
2. Proposals not reaching to the Authority on or before the specified time limit on the Proposal Due Date will not be accepted.
3. Authority shall not be responsible for any postal delay or non-receipt/ non-delivery of any documents.
4. SSCDL will not accept submission of a proposal in any manner other than that specified in the document. Proposals submitted in any other manner shall be treated as defective, invalid and rejected.
5. If the envelopes are not sealed and marked as instructed above, the SSCDL assumes no responsibility for the misplacement or premature opening of the contents of the application and consequent losses, if any suffered by the Bidder.
6. Each Bidder shall submit only one proposal containing documents as below. A bidder who submits more than one proposal under this contract will be disqualified
   a. Original copy of the Bid fee & EMD
   b. Eligibility Criteria documents
   c. Technical Eligibility criteria, Technical Proposal related documents including and Technical Compliance
   d. RFP Copy and Addenda & Corrigendum
   e. The Bidder shall prepare original set of the Application (together with originals /copies of documents required to be submitted along therewith pursuant to this document) and applicant shall also provide a soft copy on a Pen Drive / USB stick. In the event of any discrepancy between the original and Pen Drive/USB stick, the original shall prevail
   f. Each page of the above should bear the initials of the Applicant along with the seal of the Applicant in token of confirmation of having understood the contents. In case of consortium the bid will be signed by the Prime Bidder.
7. The proposal should be signed by an authorized person of the bidder. The technical proposal should be submitted along with a certified true copy of a board resolution/power of attorney empowering signatory to sign/act/execute documents binding the bidder to the terms and conditions detailed in this tender. In case of the Consortium the Prime bidder will submit this document.
8. The proposals must be direct, concise, and complete. SSCDL will evaluate bidder's proposal based on its clarity and completeness of its response to the requirements of the project as outlined in this RFP. The Chairman, SSCDL or Municipal Commissioner, SMC reserves the right to accept or reject any or all the proposals without assigning any reason.

PART 3: ONLINE PRICE BID

The price bid must be submitted online on https://smc.nprocure.com. It should not to be sent physically, if submitted physically the bid shall be rejected.

Bidders are required to submit the online price bid well in advance on nprocure website. And representation from the bidder of non-submission of bid due to the nprocure portal issue will not be entertained. In case bidder needs any clarification or if training required for participating in online tender, they can contact the following office: -

(n) Code solutions – A division GNFC Ltd.
403, GNFC Infotower, Bodakdev, Ahmedabad – 380 054, Gujarat (India)
Tel: +91 26857316/17/18 Fax: + 91 79 26857321
E-mail: nprocure@gnvfc.net Web-site: www.nprocure.com
Toll Free: 1800-233-1010 (Ext. 501 & 512)
For further particulars contact above office/ or visit on following websites:

1. www.nprocure.com ,
2. www.smc.nprocure.com

7.14. Format and Signing of Proposal

1. The Bidder shall provide all the information sought under this RFP. The Authority will evaluate only those Proposals that are received in the required formats and complete in all respects.

2. The Price Bid must be submitted online. In case, the Price Bid is submitted physically which leads to revelation of prices before the due date of opening of the Price Bid, the bid will be disqualified.

3. The Proposal must be properly signed by "the authorized signatory" of the Bidder to commit the bidder. In this regard, the copy of Board Resolution authorizing the signatory is to be attached OR power of attorney as per the "Form –1.9: Format for Power of Attorney for Signing of the Proposal" is to be submitted by the bidder. Such Power of Attorney shall be supported by a Board Resolution in favour of the person vesting power to the person signing the Bid.

7.15. Language of Bids

4. The Bids prepared by the Bidder and all correspondence and documents relating to the bids exchanged by the Bidder and SMC, shall be written in English language, provided that any printed literature furnished by the Bidder in another language shall be accompanied by an English translation in which case, for purposes of interpretation of the bid, the English translation shall govern.

5. If any supporting documents submitted are in any language other than English, Notarized copy of the translation of the same in English language shall be submitted by the bidder.

7.16. Concessions permissible under statutes

Bidder, while quoting against this tender, must take cognizance of all concessions permissible, if any, under the statutes and ensure the same is passed on to SSCDL, failing which it will have to bear extra cost. In case Bidder does not avail concessional rates of levies like customs duty etc. SSCDL will not take responsibility towards this. However, SSCDL may provide necessary assistance, wherever possible, in this regard.

7.17. Bid Validity

The proposal should be valid for acceptance for a minimum period of 180 days from the Bid Opening Date (the "Proposal Validity Period"). If required, Authority may request the bidder to have it extended for a further period. The request and the responses thereto shall be made in writing. A Bidder agreeing to the request will not be required or permitted to modify his Proposal but will be required to extend the validity of EMD for the period of the extension, and in compliance with Clause 6.10 in all respects.

7.18. Taxes

The Prices mentioned in the Price Bid should include all applicable taxes & duties as applicable. The L1 evaluation will be done exclusive of taxes only. If any duties are applicable to the product the same will be considered for L1 evaluation. The bidder to quote the duties along with the rate of products proposed for L1 evaluation.

However, the bidder is expected to provide the tax components in commercial bid. The payment of taxes to the selected bidder will be done as per the prevailing rate.

Further, SSCDL shall be entitled to deduct tax at source or any other taxes/ cess as may be applicable.

GST

GST (Goods & Service Tax) has come in existence from 1st July, 2017. Contractor/Successful Bidder is bound to pay any amount GST prescribed by the Govt. of India as per the terms of Contract agreed upon during the course of execution of this Contract.

During the course of execution of Contract, if there is any change in Rate of GST (Goods & Service Tax) by the Government, the same shall be reimbursed/recovered separately by SSCDL, subject to the submission of Original Receipt/Proof for the amounts actually remitted by the Successful Tendered/Contractor to the Competent Authority along with a Certificate from Chartered Accountant of Contractor/Successful bidder certifying that the amount of GST paid to the Government and the same shall be intimated/submitted/claimed within 30 (Thirty) Days from the date of payment. Remittance of GST within stipulated period shall be the sole responsibility of the Successful bidder/contractor, failing which, SSCDL may recover the amount due, from any other payable dues with SSCDL and decision of SSCDL shall be final and binding on the Contractor/Successful Bidder in this regard. Further the non- payment of GST to the Government may lead to the termination of contract and forfeiture of Security Deposit/Performance Guarantee Amount.

If imposition of any other new Taxes/Duties/Levies/Cess or any other incidentals etc. or any increase in the existing Taxes/Duties/Levies/Cess or any other incidentals etc. (excluding GST) are imposed during the course of the contract, the same shall be borne by the Contractor/Successful Bidder Only, in no case SSCDL shall be liable for the same.

7.19. Firm Prices and Bid Currency

Prices quoted must be firm and final and shall not be subject to any upward modifications, on any account whatsoever. Prices shall be expressed in Indian Rupees (INR) only.

7.20. Right to vary the scope of the work at the time of award

SSCDL reserves its right to make changes to the scope of the work at the time of execution of the resultant Agreement. If any such change causes an increase or decrease in the cost of, or the time required for the SI's performance of any part of the work under the Agreement, whether changed or not changed by the order, an equitable adjustment (if required) shall be made in the Contract Value or time schedule, or both, and the Agreement shall accordingly be amended. Any claims by the SI for adjustment under this Clause must be asserted within thirty (30) days from the date of the SI's receipt of the SSCDL changed order.

7.21. Modification or Withdrawal of Bids

1. Proposal once filled in, submitted shall not be allowed to be withdrawn till the validity of the bid remains in force or else the Earnest Money Deposit shall be liable for forfeiture.
2. Any alteration/ modification in the Proposal or additional information supplied subsequent to the Proposal Due Date, unless the same has been expressly sought for by the Authority, shall be disregarded.
3. A Bidder may withdraw its submitted Bid, before the last date for submission of Bids. In case a Bidder wants to resubmit his Bid, he shall re-submit the Bid following all the applicable conditions. Resubmission will not be permitted after the last date and time of submission as notified.
4. Only a single copy of the withdrawal notice shall be prepared and each page of the notice shall be signed and stamped by the authorized signatory. The notice shall be duly marked "WITHDRAWAL". This withdrawal notice will be opened at the time of opening of bid and not earlier. The signature of Power of Attorney holder will be verified and in case both are same then only withdrawal will be considered.

7.22. Evaluation Process

1. **A two-stage selection procedure will be adopted: Stage-1: Technical Bid (Basic Eligibility Criteria + Technical Compliance) and Stage-2: Commercial bid.**

2. In the first stage SSCDL/SMC shall examine the statement of eligibility, experience, technical capabilities etc. furnished by the Bidder and select the bidders who satisfy the technical evaluation criteria

3. In the second stage, subsequent to technical evaluation stage, commercial bids of only shortlisted Bidders will be opened. It should be noted the bids shall be evaluated on the basis of price. However, if required SSCDL/SMC as per its own discretion may also consider other factors like technology, innovative solution, etc.

4. There should be no mention of bid prices in any part of the Bid other than the Commercial Bids.

7.23. Opening of Technical Bid

1. The Technical Bids of Bidders shall be considered and will be evaluated as per the eligibility criteria mentioned in section 4

2. SMC/SSCDL may require written clarifications from the Bidders to clarify ambiguities and uncertainties arising out of the evaluation of the Bid

7.24. Evaluation of Technical Bid

1. The Bidder must meet the eligibility / technical criteria laid in this RFP and possess the technical know-how and the financial wherewithal that would be required to successfully provide the services sought by SSCDL, for the entire period of the contract. The Bidder's Bid must be complete in all respects, conform to all the requirements, terms and conditions and specifications as stipulated in the Bid Document.
2. The bidder must make sure to provide all the relevant documents to support the claim made with regards to various evaluation criteria like turnover, net worth, projects executed, etc. SSCDL will examine the Bids to determine whether they are complete, response and whether the Bid format confirms to the Bid Document requirements. SSCDL may waive any informality or nonconformity in a Bid which does not constitute a material deviation according to SSCDL.
3. There should be no mention of bid prices in any part of the Bid other than the Commercial Bids.

4. SMC/SSCDL may require written clarifications from the Bidders to clarify ambiguities and uncertainties arising out of the evaluation of the Bid.

7.25. Opening of Commercial Bid

1. The Commercial bids shall not be opened by SSCDL until the evaluation of the Technical bid has been completed.
2. SSCDL will open the Commercial Bids of those Bidders who got qualified in Technical bid.
3. Commercial Bids from bidders who have failed to qualify in evaluation of the technical bid will not be opened. Only bids that are opened and read out at the proposal opening shall be considered further

7.26. Clarification of Bids and Request for additional/ missing information

To facilitate evaluation of Proposals, the Authority may, at its sole discretion, seek clarifications/documents/missing information in writing from any Bidder regarding its Proposal. The request for clarification or submission of information and the response shall be in writing. If the response from the Bidder is not received by the Authority before the expiration of the deadline prescribed in the written request, the Authority reserves the right to proceed with evaluation process at the total risk and cost of the Bidder.

7.27. Verification and Disqualification

(i) The Authority reserves the right to verify all statements, information and documents submitted by the Bidder in response to the RFP and the Bidder shall, when so required by the Authority, make available all such information, evidence and documents as may be necessary for such verification. Any such verification or lack of such verification, by the Authority shall not relieve the Bidder of its obligations or liabilities hereunder nor will it affect any rights of the Authority there under.

(ii) The Authority reserves the right to reject any Proposal if:

1) At any time, a material misrepresentation in terms of misleading or false representation is made or uncovered, or
2) Bidder or its parents/subsidiary/sister concern from whom it is taking credit for meeting Qualification Criteria is blacklisted/barred by any Government Agency in India or abroad.
3) The Bidder does not provide, within the time specified by the Authority, the supplemental information sought by the Authority for evaluation of the Proposal.
4) In case of fraudulent Bid/proposal and involved in fraudulent and corrupt practice
5) A Bidder makes an effort to influence Authority in its decisions on Evaluation process/Selection process.
6) While evaluating the Proposal, if it comes to Authority's knowledge expressly or implied, that some Bidders may have compounded in any manner whatsoever or otherwise joined to form an alliance resulting in distorting competitive price discovery or delaying the processing of proposal.
7) A bidder who submits or participates in more than one Bid/ Proposal under this RFP.

Such misrepresentation/blacklisting shall lead to the disqualification of the Bidder. If such disqualification/ rejection occurs after the Bids/Proposals have been opened

and the Selected Bidder gets disqualified / rejected, then the Authority reserves the right to:

a. invite the remaining Bidders to submit their Bids/proposals, or

b. take any such measure as may be deemed fit in the sole discretion of the Authority, including annulment of the Bidding Process.

(iii) In case it is found during the evaluation of Proposals or at any time before signing of the Contract or after its execution and during the period of subsistence thereof, that one or more of the prequalification/eligibility criteria/ conditions have not been met by the Bidder, or the Bidder has made material misrepresentation or has given any materially incorrect or false information, the Bidder shall be disqualified forthwith if not yet appointed as the Selected Bidder either by issue of the LOA/Work Order or by contract, and if the Successful Bidder has already been issued the LOA or has entered into the Contract, as the case may be, the same shall, notwithstanding anything to the contrary contained therein or in this RFP, be liable to be terminated, by a communication in writing by the Authority to the Successful Bidder or the Selected Bidder, as the case may be, without the Authority being liable in any manner whatsoever to the Successful Bidder or the Selected Bidder. In such an event, the Authority shall be entitled to forfeit the Security Deposit, as the case may be, without prejudice to any other right or remedy that may be available to the Authority under the RFP and/or the Contract.

7.28. Contacts during Proposal Evaluation

Proposals shall be deemed to be under consideration immediately after they are opened and until such time the Authority makes official intimation of award/ rejection to the Bidders. While the Bids are under consideration, Bidders and/ or their representatives or other interested parties are advised to refrain, save and except as required under the Bidding Documents, from contacting by any means, the Authority and/ or their employees/representatives on matters related to the Bids under consideration.

7.29. Correspondence with Bidder

Save and except as provided in this RFP, the Authority shall not entertain any correspondence with any Bidder in relation to acceptance or rejection of any Bid/Proposal.

7.30. Confidentiality

Information relating to the examination, clarification, evaluation, and recommendation for the Bidders shall not be disclosed to any person who is not officially concerned with the process or is not a retained professional advisor advising the Authority in relation to, or matters arising out of, or concerning the Bidding Process. The Authority will treat all information, submitted as part of the Proposal, in confidence and will require all those who have access to such material to treat the same in confidence. The Authority may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/ or the Authority or as may be required by law or in connection with any legal process.

7.31. Notifications of Award and Signing of Contract

1 It is to be noted that the date of commencement of the project and all contractual obligations shall commence from the date of issuance of Purchase Order/Letter of Intent (LoI), whichever is earlier. All reference timelines as regards the execution of the project and the payments to the System Integrator shall be considered as beginning from the date of issuance of the Purchase Order/Letter of Acceptance, whichever is earlier.

2 The notification of award (LoI/Purchase Order) will constitute the formation of the Contract. Upon the Bidder's executing the contract with SSCDL, it will promptly notify each unsuccessful bidder and return their EMDs.
3 The Bidder shall enter into a written agreement with SSCDL for this work on a stamp paper of appropriate value of Government of Gujarat at the Bidder's own cost within 15 (fifteen) days period from the date of Notice of Award.

7.32. Rights to Accept/Reject any or all Proposals

SSCDL reserves the right to accept or reject any proposal, and to annul the bidding process and reject all Bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected bidder or bidders of the grounds for SSCDL's action.

7.33. Quantity Variation

1. The quantity defined in the RFP are estimated and the actual quantity will be executed based on the actual site survey by the selected bidder at the time of project implementation. The quoted rate will remain firm and same for such variation in quantity. The successful bidder shall not object to the upward or downward variation in quantities (including locations). The payment will be made as per actual executed quantity as per tender rates for entire duration of contract.
2. Quantities mentioned in the commercial formats are indicative in number. SMC/SSCDL at its discretion may or may not procure the listed components in mentioned quantities at the time of placing order / agreement. SSCDL has the rights to delete any of the component before final implementation. The successful bidder shall not object to the upward or downward variation in quantities of any item.
3. The payment for variation items such as UTP cables, OFC cable, pipes, etc. will be made on actual quantity and payment will be made at tender rates for entire duration of contract
4. No claim shall be entertained or become payable for price variation of additional quantities.

7.34. Performance Bank Guarantee

1. The successful bidder shall at his own expense, deposit with department, within 10 days of the notification of award (done through issuance of the Purchase Order/Letter of Acceptance), an unconditional and irrevocable Performance Bank Guarantee (PBG) from a list of approved banks as per the format given in this Bid Document, in favour of Surat Smart City Development Ltd for the due performance and fulfilment of the contract by the bidder. Failing which a penalty @ 0.065% of the amount of PBG will be imposed for delay of each day.
2. This Performance Bank Guarantee will be for an amount equivalent to 10% of contract value. All charges whatsoever such as premium, commission, etc. with respect to the Performance Bank Guarantee shall be borne by the bidder.
3. The successful bidder shall maintain a valid and binding Performance Guarantee for a period of six months after the expiry of the Contract Period ("Validity Period").
4. The Performance Bank Guarantee letter format can be found in the **Annexure 3** of this document.
5. The Performance Bank Guarantee may be discharged/ returned by department upon being satisfied that there has been due performance of the obligations of the Bidder under the contract. However, no interest shall be payable on the Performance Bank Guarantee.
6. If the Bidder, fails to furnish the Performance Guarantee, it shall be lawful for the Authority to forfeit the EMD or cancel the contract or any part thereof.

7. In the event of the Bidder being unable to service the contract for whatever reason, department would evoke the PBG. Notwithstanding and without prejudice to any rights whatsoever of department under the Contract in the matter, the proceeds of the PBG shall be payable to department as compensation for any loss resulting from the Bidder's failure to complete its obligations under the Contract. Department shall notify the Bidder in writing of the exercise of its right to receive such compensation within 14 days, indicating the contractual obligation(s) for which the Bidder is in default.
8. Department shall also be entitled to make recoveries from the Bidder's bills, performance bank guarantee, or from any other amount due to him, the equivalent value of any payment made to him due to inadvertence, error, collusion, misconstruction or misstatement.
9. Under this contract, wherever the contractor is required to submit F.D.R., bank guarantee, etc. against payment towards any deposit or advance e.g., EMD, SD, etc. Such F.D.R, bank guarantees, etc. shall be produced from any one of the approved banks as defined in Annexure-4. During the contract period if the bank from which the PBG is submitted is removed from the list of approved banks, the selected bidder shall be required to replace the PBG and submit the PBG from the approved bank. The notification in this regard will be given to the selected bidder by SMC/SSCDL and the same must be complied within 21 days of such notification.

7.35. Governing Law

The Bidding Process shall be governed by, and construed in accordance with, the laws of India and the Courts at Surat shall have exclusive jurisdiction over all disputes arising under, pursuant to and/or in connection with the Bidding Process.

7.36. Failure to agree with the Terms & Conditions of the Bid Document/ Contract

Failure of the bidder to agree with the Terms & Conditions of the Bid Document/Contract shall constitute sufficient grounds for the annulment of the award of contract, in which event the contract may be awarded to the next most responsive bidder.

7.37. Restriction on Transfer of Agreement

The System Integrator shall not assign or transfer its right in any manner whatsoever under this agreement to a third party or enter into any agreement for sub-contracting and/or partnership relating to any subject matter to the agreement to any third party or any sister-concerned firm within a group either in whole or in any part i.e., partnership/third party interest shall be created. The sub-contracting is allowed only for activities mentioned in section 7.38.

7.38. Subcontracting

1. The bidder is allowed to Sub-contract for "SITC and Maintenance of IT Hardware & Network Infrastructure" and/or "SITC & Maintenance of complete QMS Solution "activity.
2. Prime Bidder to mention details of the sub-contracting scope proposed in the bid along with the name of the sub-contractor and activity assigned.
3. Personnel deployed by sub-contractor through the Prime Bidder will be subject to clearance from SMC to ensure that the desired capability requirements are met.
4. Any change in Sub-Contractor shall only be allowed with prior written approval of SMC/ SSCDL. Decision of SMC/SSCDL will be final and binding in this regard.
5. Even if the specific scope of work is sub-contracted, the sole responsibility of the work shall lie with the prime bidder.

6. The prime bidder shall be held responsible for any delay/error/noncompliance etc. of its sub-contracted vendor.
7. The details of the sub-contracting along with copy of agreements between both the parties would be required to be submitted to SMC/ SSCDL.
8. Overall proposed sub-contracting value shall not exceed 30% of the total project value defined in price bid.
9. The sub-contract is permitted only if the proposed sub-contractor meets the minimum criteria specified in the RFP.
10. The sub-contractor must meet the minimum criteria as specified in pre-qualification section 4.3.

7.39. Safety Regulation, Accident and Damage

The Bidder shall be responsible at his own cost in and relative to performance of the work and bidder to observe and to ensure observance by his Sub-contractors, agents and servants of the provisions of Safety Code as hereinafter appearing and all fire, Safety and security regulations as may be prescribed by the Owner from time to time and such other Precautions, measures as shall be necessary and shall employ / deploy all equipment necessary to protect all works, materials, properties, structures, equipment, installations, communications and facilities whatsoever from damage, loss or other hazard whatsoever (including but not limited to fire and explosion) and shall during construction and other operations minimize the disturbance and inconvenience to the Owner, other bidders, the public and adjoining land and property owners and occupiers, and crops, trees and vegetation and shall indemnify and keep indemnified the One from and against all losses and damages and costs, charges and expenses and penalties, actions, claims, demands and proceedings whatsoever suffered or incurred by or against the Owner, as the case may be, virtue of any loss, alteration, displacement, disturbance or destruction or accident to any works materials, properties, structures, equipment, installations communications and facilities and land and property owners and occupiers and crops, trees and vegetation as aforesaid, with the intent that the Bidder shall be exclusively responsible for any accident, loss, damage, alteration, displacement, disturbance or destruction as aforesaid resultant directly or indirectly from any breach by the Bidder of his obligation aforesaid or upon any operation, act or omission of the bidder his Sub-contractor(s) or agent(s) or servant(s).

The Bidder's liabilities under the Contract shall remain unimpaired notwithstanding the existence of any storage cum erection or other insurance covering any risk, damage, loss or liability for which the Bidder is liable to the Owner in terms of the foregoing Sub-Clause or otherwise and / or in respect of which the Bidder has indemnified the Owner with the intent that notwithstanding the existence of such insurance, the Bidder shall be and remain fully liable for all liabilities and obligations under the contract and indemnified to the Owner, and the Owner shall not be obliged to seek recourse under such policy(ies) in preference to recourse against the Bidder or otherwise to exhaust any other remedy in preference to the remedies available to in under the Contract prior written approval of SSCDL. However, even if the work is sub-contracted / outsourced, the sole responsibility of the work shall lie with the SI. The SI shall be held responsible for any delay/error/non-compliance etc. of its sub-contracted vendor. The details of the sub-contracting agreements (if any) between both the parties would be required to be submitted to SSCDL.

7.40. General Clause related to Any Bidders/Sub-Contractor from a Country which shares a Land Border with India

I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority (Registration

committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT)).

II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.

III. "Bidder from a country which shares a land border with India" means:

a. An entity incorporated, established or registered in such a country; or
b. A subsidiary of an entity incorporated, established or registered in such a country; or
c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
d. An entity whose beneficial owner is situated in such a country; or
e. An Indian (or other) agent of such an entity; or
f. A natural person who is a citizen of such a country; or
g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above

IV. The beneficial owner for the purpose of (iii) above will be as under:

1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.
   a. Explanation—
   b. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company;
   c. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
4. Where no natural person is identified under i or ii or iii above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

VI. The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority (Registration committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT)).

7.41. Earnest Money Deposit (EMD)

(a) EMD of Rs. 25,00,000 (Rupees Twenty-Five Lakh only) in favour of “Surat Smart City Development Limited” by Demand Draft / Banker’s Cheque or

(b) Any bid not accompanied with valid Earnest Money Deposit in the acceptable amount, form and validity period will be summarily rejected by the Authority as being non-responsive and bids of such Bidder shall not be evaluated further.

(c) No interest will be payable by the Authority on the Earnest Money Deposit.

(d) The EMD of unsuccessful Bidders will be returned by the Authority, without any Interest, as promptly as possible on acceptance of the Proposal of the Selected Bidder or when the Authority cancels the Bidding Process.

(e) The Selected Bidder's EMD will be returned, without any interest, upon the Selected Bidder signing the Agreement and furnishing the Security Deposit in accordance with the provision thereof.

(f) The EMD shall be forfeited and appropriated by the Authority as damages without prejudice to any other right or remedy that may be available to the Authority hereunder or otherwise, under the following conditions:

1) If a Bidder submits a non-responsive Proposal;
2) If a Bidder engages in a corrupt practice, fraudulent practice, coercive practice, undesirable practice, or restrictive practice;
3) If a Bidder withdraws its Proposal during the Proposal Validity Period as specified in this RFP and as extended by mutual consent of the respective Bidder(s) and the Authority;
4) In the case of Successful Bidder, if it fails within the specified time limit –
   i to sign and return the duplicate copy of LOA
   ii to sign the Agreement within the time period specified by the Authority
   iii to furnish the Security Deposit along with the signed copy of LOA; or
5) In case the Successful Bidder, having signed the Contract, commits any breach thereof prior to furnishing the Security Deposit.

7.42. Due Diligence

The Bidders are encouraged to examine and familiarize themselves fully about the nature of assignment, scope of work, all instructions, forms, terms and conditions of RFP, local conditions and any other matter considered relevant by them before submitting the Bid by paying a visit to the site, sending written queries to the Authority, and attending Pre-Bid meetings.

7.43. Acknowledgement by Bidder

a) It shall be deemed that by submitting the Bid, the Bidder has:
   1) made a complete and careful examination of the RFP
   2) received all relevant information requested from the Authority;
   3) accepted the risk of inadequacy, error or mistake in the information provided in the RFP or furnished by or on behalf of the Authority
   4) acknowledged that it does not have a Conflict of Interest
   5) agreed to be bound by the undertakings provided by it under and in terms hereof.

b) The Authority shall not be liable for any omission, mistake, or error in respect of or any of the above or on account of any matter or thing arising out of or concerning or relating to the RFP or the Bidding Process, including any error or mistake therein or in any information or data given by the Authority.

c) A bidder cannot be a member of more than one bidding consortium. An individual firm applying as a single/lead bidder cannot at the same time be the member of any other consortium. No Bidder shall submit more than one Proposal pursuant to this RFP. If a Bidder submits or participates in more than one Proposal, such Proposals shall be disqualified.

7.44. Terms & Conditions

7.44.1 Selected Bidder shall undertake project on design-build-maintain-transfer model basis.

7.44.2 Selected Bidder shall design, build, maintain, and transfer the project during the Contract Period. Provided in the event of earlier termination of the Contract, this period shall be ending with the date of termination of the Contract.

7.44.3 Registration/ License: The bidder should have necessary registration and license to carry out the work and execute the project as per RFP. The bidder will be solely responsible for compliance with all the norms laid down and applicable for the work under this RFP.

7.44.4 The bidder will indemnify SSCDL//Employer/SMC, as the case may be, against all penal action that may be levied/affected by any concerned authority for default in any labour regulation/PF/ESI and other statutory requirements of the relevant Acts/Laws related to the work of the agency/firm and will bear the legal charges, if any, and will pay the legal charges/dues directly to the concerned authority.

7.44.5 The payment to the Selected Bidder shall start based on payment terms.

7.44.6 In case of Termination due to Selected Bidder's Event of Default, the Authority shall have right;

- To forfeit the Security Deposit in full.
- To appoint another Bidder. In such case, selected bidder will need to handover to SSCDL/SMC or the appointed bidder.
- SSCDL/SMC reserves the right to get the work done from third party at the bidder's risk and cost.

7.44.7 If the Bidder does not execute the contract to the satisfaction of the SSCDL/SMC and fails to cure such default within thirty days from the intimation of the same, then the authority may invoke any or all of the following clauses.

- SSCDL/SMC reserves the right to get the work done from third party at the bidder's risk and cost.
- Forfeit the Security Deposit Amount
- Terminate the contract without any liability of SSCDL/SMC towards the Bidder.

7.44.8 Limitation of Liability

The SI's liability under shall be determined as per the Law in force for the time being. The SI shall be liable to the SSCDL/HSCC for loss or damage occurred or caused or likely to occur on account of any act of omission on the part of the SI and its employees, including loss caused to SSCDL/HSCC on account of defect in goods or deficiency in services on the part of SI or his agents or any person / persons claiming through or under said SI. However, such liability of SI shall not exceed the consideration of the contract.

This limitation of liability shall not limit the SI's liability, if any, for damage to Third Parties caused by the SI or any person or firm acting on behalf of the SI in carrying out the scope of work envisaged herein.

This limitation of liability shall not limit the SI's liability, if any, arising out of an action performed with a malafied intention/fraud by bidder or its personnel.

7.44.9 Indemnity

The selected bidder agrees to indemnify and hold harmless SSCDL/HSCC, its officers, employees and agents (each a "Indemnified Party") promptly upon demand at any time and from time to time, from and against any and all losses, claims, damages, liabilities, costs (including reasonable attorney's fees and disbursements) and expenses (collectively, "Losses") to which the Indemnified Party may become subject, in so far as such losses directly arise out of, in any way relate to, or result from

(i) any mis-statement or any breach of any representation or warranty made by the Selected bidder or

(ii) The failure by the selected bidder to fulfil any covenant or condition contained in this Agreement, including without limitation the breach of any terms and conditions of this Agreement by any employee or agent of the selected bidder. Against all losses or damages arising from claims by third Parties that any Deliverable (or the access, use or other rights thereto), created selected bidder pursuant to this Agreement, or any equipment, software, information, methods of operation or other intellectual property created by selected bidder or its representative pursuant to this Agreement, or the SLAs (I) infringes a copyright, trade mark, trade design enforceable in India, (II) infringes a patent issued in India, or (III) constitutes misappropriation or unlawful disclosure or use of another Party's trade secretes under the laws of India (collectively, "Infringement Claims") or

(iii) any compensation / claim or proceeding by any third party against SSCDL/HSCC arising out of any act, deed or omission by the selected bidder or

(iv) Claim filed by a workman or employee engaged by the selected bidder for carrying out work related to this Agreement. For the avoidance of doubt, indemnification of Losses pursuant to this section shall be made in an amount or amounts sufficient to restore each of the Indemnified Party to the financial position it would have been in had the losses not occurred.

(v) Any payment made under this Agreement to an indemnity or claim for breach of any provision of this Agreement shall include applicable taxes.

7.44.10 Third Party Claims

(a) Subject to Sub-clause (b) below, the Selected bidder (the "Indemnified Party") from and against all losses, claims litigation and damages on account of bodily injury, death or damage to tangible personal property arising in favor or any person, corporation or other entity (including the Indemnified Party) attributable to the Indemnifying Party's performance or non-performance under this Agreement or the SLAs.

(b) The indemnities set out in Sub-clause (a) above shall be subject to the following conditions:

i. The Indemnified Party, as promptly as practicable, informs the Indemnifying Party in writing of the claim or proceedings and provides all relevant evidence, documentary or otherwise;

ii. The Indemnified Party shall, at the cost and expenses of the Indemnifying Party, give the Indemnifying Party all reasonable assistance in the defense of such claim including reasonable access to all relevant information, documentation and personnel. The indemnifying party shall bear cost and expenses and fees of the Attorney on behalf of the Indemnified Party in the litigation, claim.

iii. if the Indemnifying Party does not assume full control over the defense of a claim as provided in this Article, the Indemnifying Party may participate in such defense at its sole cost and expense, and the Indemnified Party will have

the right to defend the claim in such manner as it may deem appropriate, and the cost and expense of the Indemnified Party will be borne and paid by the Indemnifying Party.

iv. The Indemnified Party shall not prejudice, pay or accept any proceedings or claim, or compromise any proceedings or claim, without the written consent of the Indemnifying Party;

v. selected bidder hereby indemnify & hold indemnified the SSCDL/HSCC harmless from & against any & all damages, losses, liabilities, expenses including legal fees & cost of litigation in connection with any action, claim, suit, proceedings as if result of claim made by the third party directly or indirectly arising out of or in connection with this agreement.

vi. all settlements of claims subject to indemnification under this Article will: (a) be entered into only with the consent of the Indemnified Party, which consent will not be unreasonably withheld & include an unconditional release to the Indemnified Party from the claimant for all liability in respect of such claim; & (b) include any appropriate confidentiality agreement prohibiting disclosure of the terms of such settlement;

vii. the Indemnified Party shall take steps that the Indemnifying Party may reasonably require to mitigate or reduce its loss as a result of such a claim or proceedings; &

viii. In the event that the Indemnifying Party is obligated to indemnify an Indemnified Party pursuant to this Article, the Indemnifying Party will, upon payment of such indemnity in full, be subrogated to all rights & defenses of the Indemnified Party with respect to the claims to which such indemnification relates;

ix. in the event that the Indemnifying Party is obligated to indemnify the Indemnified Party pursuant to this Article, the Indemnified Party will be entitled to invoke the Performance Bank Guarantee, if such indemnity is not paid, either in full or in part, & on the invocation of the Performance Bank Guarantee, the Indemnifying Party shall be subrogated to all rights & defenses of the Indemnified Party with respect to the claims to which such indemnification relates.

7.44.11 Termination / Withdrawal: SSCDL/SMC reserves the right to withdraw/ terminate the contract in whole or in part with a written notice to the bidder without assigning any reason thereof. The general circumstances that may lead to termination can be inclusive of but not limited to the following:

1. Bidder becomes insolvent, bankrupt, resolution is passed for the winding up of the applicant organization
2. Information provided to SSCDL/SMC is found to be incorrect;
3. Delivery conditions are not met within the specified time period and Bidder has failed to cure such breach within thirty days from the intimation of the same;
4. Misleading claims about the Bidder are made;
5. Clear evidence is received that Bidder has breached copyright laws/ plagiarized from another source;
6. If the bidder fails to perform any other obligation(s) under the RFP;
7. If the SI fails to deliver any or all of the project requirements / operationalization / go-live of the project within the time frame specified in the RFP
8. If the bidder fails to provide the satisfactory services during the implementation and post implementation support period.

SSCDL may, without prejudice to any other remedy under this RFP and applicable law, reserves the right to terminate for breach of contract by providing a notice stating the reason for default to the SI and as it deems fit, terminate the contract either in whole or in part.

On receipt of such notice, SI will be required to cure any breach/ default, if SSCDL is of the view that the breach may be rectified.

On failure of the SI to rectify such breach, SSCDL may terminate the contract, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to SSCDL. In such event the SI shall be liable for penalty/liquidated damages imposed by the SSCDL. The performance Guarantee shall be forfeited by the SSCDL

Consequences of Termination

In the event of termination of this contract, SSCDL is entitled to impose any such obligations and conditions and issue any clarifications as may be necessary to ensure an efficient transition and effective continuity of the services which the SI shall be obliged to comply with and take all available steps to minimize the loss resulting from that termination/ breach, and further allow and provide all such assistance to SSCDL and/ or succeeding vendor, as may be required, to take over the obligations of the SI in relation to the execution / continued execution of the requirements of this contract.

Plans and drawings

All plans, drawings, specifications, designs, reports and other documents prepared by the Vendor in the execution of the contract shall become and remain the property of SSCDL and before termination or expiration of this contract the SI shall deliver all such documents, prepared under this contract along with a detailed inventory thereof, to SSCDL.

7.44.12 Use & Acquisition of Assets during the term

System Integrator shall

- take all reasonable & proper care of the entire hardware & software, network or any other information technology infrastructure components used for the project & other facilities leased/owned by the system integrator exclusively in terms of the delivery of the services as per this Agreement (hereinafter the "Assets" which include all the hardware / Software / furniture / data / documentations / manuals / catalogues / brochures / or any other material procured, created or utilized by the SI or the SSCDL for the Surat Project) in proportion to their use & control of such Assets which will include all upgrades/enhancements & improvements to meet the needs of the project arising from time to time; Note: Hardware upgrades outside the RFP scope would not be part of the original contract and would be catered through change request. Assets would be owned by the SSCDL however, the System Integrator would be custodian of the same during the entire contract period and would take care of all wear-tear, insurance, theft etc. so that the SLAs are not affected.
- Maintain sufficient spare inventory at all times, for all items of importance;
- keep all the tangible Assets in good & serviceable condition (reasonable wear & tear excepted) &/or the intangible Assets suitably upgraded subject to the relevant standards as stated in of the RFP to meet the SLAs mentioned in the contract & during the entire term of the Agreement.
- ensure that any instructions or manuals supplied by the manufacturer of the Assets for use of Assets & which are provided to the system integrator will be followed by the System integrator & any person who will be responsible for the use of the Asset;
- take such steps as may be recommended by the manufacturer of the Assets & notified to the system integrator or as may be necessary to use the Assets in a safe manner;

- provide a well-prepared documentation for users in the manual, a clear plan for training, education & hand holding the users & shall form part of hand holding phase until bringing up the users to use software solution with speed &efficiency;
- To the extent that the Assets are under the control of the system integrator, keep the Assets suitably housed & in conformity with any statutory requirements from time to time applicable to them,
- Provide and facilitate access to SSCDL or its nominated agencies & any persons duly authorized by him/her to enter any land or premises on which the Assets are for the time being sited so as to inspect the same, subject to any reasonable requirements;
- Not, knowingly or negligently use or permit any of the Assets to be used in contravention of any statutory provisions or regulation or in any way contrary to law;
- Use the Assets exclusively for the purpose of providing the Services as defined in the contract;
- Use the Assets only in accordance with the terms hereof & those contained in the SLAs;
- Maintain standard forms of comprehensive insurance including liability insurance, system & facility insurance & any other insurance for the Assets, data, software, etc in the joint names of SSCDL & the System Integrator, where SI shall be designated as the 'loss payee' in such insurance policies; SI shall be liable to pay premium for the insurance policy & shall ensure that each & every policy shall keep updated from time to time.
- Ensure the integration of the software with hardware to be installed and the current Assets in order to ensure the smooth operations of the entire solution architecture to provide efficient services to SSCDL of this Project in an efficient and speedy manner; &
- Obtain a sign off from SSCDL or its nominated agencies at each stage as is essential to close each of the above considerations.
- Ownership of the Assets shall vest with SSCDL from the date of supply of the project. Ownership of any asset, created during the contractual period, shall also vest with SSCDL upon creation of such asset. System Integrator shall not use SSCDL data or assets to provide services for the benefit of any third party, as a service bureau or in any other manner. On expiry of the contract, SI shall be required to handover all the tangible and non-tangible assets in working condition. In case any assets are found to be damaged at the time of handover, SI is required to repair/replace the same at cost to SMC/SSCDL.

7.44.13 Data Migration Details

The Existing applications serving the requirements of SMIMER, Maskati Hospital & Health Centers are developed on VB.NET, ASP.NET, C #, VB and backend used is MS SQL 2012. Applications whose functionalities are covered under E-HEALTH will retire/sunset after successful E-HEALTH implementation. The master data and transactional data to the possible extent will be migrated to the new system. Extraction of data and data cleansing will be joint responsibility of SMC current team along with selected bidder. Selected bidder will provide the templates in which data is expected and SMC current team to populate the data.

7.44.14 Data Ownership

All the data created as the part of the project shall be owned by SSCDL. The SI shall take utmost care in maintaining security, confidentiality and backup of this data. Access to the data / systems shall be given by the SI only as per the IT Security Policy, approved by SSCDL. SSCDL / its authorized representative(s) shall conduct periodic / surprise security reviews and audits, to ensure the compliance by the SI Vendor to data / system security.

7.44.15 Intellectual Property Rights

(A) For the customized solution developed for the project, IPR of the solution would belong exclusively to the SSCDL. The SI shall transfer the source code to SSCDL. SI shall also submit all the necessary instructions for incorporating any modification / changes in the software and its compilation into executable / installable product. SSCDL may permit the SI, right to use the customized software for any similar project being executed by the same SI, with payment of reasonable royalty to SSCDL for the same.

(B) Deliverables provided to SSCDL by System Integrator during the course of its performance under this Agreement, all rights, title and interest in and to such Deliverables, shall, as between System Integrator and SSCDL, immediately upon creation, vest in SSCDL. To the extent that the System Integrator Proprietary Information is incorporated within the Deliverables, System Integrator and its employees engaged hereby grant to SSCDL a worldwide, perpetual, irrevocable, non-exclusive, transferable, paid-up right and license to use, copy, modify (or have modified), use and copy derivative works for the benefit of and internal use of SSCDL.

7.44.16 The bidder's team should arrange their own Laptops/Computers, software, etc. SSCDL/SMC would provide only space, electricity, and connectivity for operations. Vendor represents and warrants that its collection, access, use, storage, disposal, and disclosure of SSCDL/SMC Information does and will comply with all applicable SSCDL/SMC's privacy and data protection laws, as well as all other applicable regulations and directives.

7.44.17 **Exit Management:** The exit process would start at the beginning of the last two quarters in case contract is not extended further. At the beginning of the second last quarter of the end of the contract period or in the event of termination of contract, the Bidders required to provide necessary handholding and transition support, which shall include but not limited to, conducting detailed transition, trainings, demos/drills for the project services, project documentation, configuration, customization, etc., and addressing the queries/clarifications of new SI selected by SSCDL/SMC.

Bidder shall provide support in terms of smooth handing over of its services. At the end of the Contract Period or earlier Termination of Contract due to Bidder's event of default, the Bidder shall transfer functional and technical know-how, processes, documentation and all artifacts of the project at no additional cost to Authority.

During the contract period, the Bidder shall ensure that all the documentation including policies, procedures, etc. are kept up to date and the same are handed over to SMC during the Exit management process.

Confidential Information, Security and Data

(a) Systems Integrator will promptly on the commencement of the exit management period, supply to the SSCDL or its nominated agencies the following:
(b) Information relating to the current services rendered and performance data relating to the performance of the services; Documentation relating to Project, Project's Intellectual Property Rights; any other data and confidential information related to the Project;
(c) Project data as is reasonably required for purposes of the Project or for transitioning of the services to its Replacing Successful Bidder in a readily available format.
(d) All other information (including but not limited to documents, records and agreements) relating to the services reasonably necessary to enable the SSCDL and its nominated agencies, or its Replacing Vendor to carry out due diligence in order to transition the

provision of the Services to SSCDL or its nominated agencies, or its Replacing Vendor (as the case may be).

7.44.18 The bidder shall certify that no product quoted in the bid has its End-of-life announced. Also, at the time of supplying the quoted product, if the product has reached its end of sale, then the bidder will be required to supply similar product for the same OEM with similar or higher specifications and should be latest.

7.44.19 Publicity: Any publicity by the SI in which the name of SSCDL/SMC is to be used should be done only with the explicit written permission of SSCDL/SMC.

7.44.20 Warranties

a. The System Integrator warrants and represents to SSCDL that:
   i. It has full capacity and authority and all necessary approvals to enter into and to perform its obligations under this Agreement;
   ii. This Agreement is executed by a duly authorized representative of the System Integrator;
   iii. It shall discharge its obligations under this Agreement with due skill, care and diligence so as to comply with the RFP requirements including service level agreement.

b. In the case of the SLA, the System Integrator warrants and represents to SSCDL, that:
   - the System Integrator has full capacity and authority and all necessary approvals to enter into and perform its obligations under the SLAs and to provide the Services;
   - The SLAs have been executed by a duly authorized representative of the System Integrator;
   - The System Integrator is experienced in managing and providing works similar to the Services and that it will perform the Services with all due skill, care and diligence so as to comply with service level agreement;
   - The Services will be provided and rendered by appropriately qualified, trained and experienced personnel as mentioned in the RFP;
   - System Integrator has and will have all necessary licenses, approvals, consents of third Parties free from any encumbrances and all necessary technology, hardware and software to enable it to provide the Services;
   - The Services will be supplied in conformance with all laws, enactments, orders and regulations applicable from time to time;
   - System Integrator will warrant that the goods supplied under the contract are new, unused, of the most recent higher version /models and incorporate all recent improvements in design and materials unless provided otherwise in the contract. The System Integrator further warrants that the goods supplied under this contract shall have no defects arising from design, materials or workmanship.
   - The overall system design shall be such that there is no choking point / bottleneck anywhere in the system (end-to-end) which can affect the performance / SLAs.
   - Subject to the fulfilment of the obligations of the System Integrator as provided for in sub clause (viii) above, in the event that such warranties cannot be enforced by SSCDL, the System Integrator will enforce such warranties on behalf of SSCDL and pass on to SSCDL, the benefit of any other remedy received in relation to such warranties.

c. Notwithstanding what has been stated elsewhere in this Agreement and the Schedules attached herein, in the event the System Integrator is unable to meet the obligations

pursuant to the implementation of the Project, Operations and Maintenance Services and any related scope of work as stated in this Agreement and the Schedules attached herein, SSCDL will have the option to invoke the Performance Guarantee after serving a written notice on the system Integrator.

7.44.21 Force Majeure:

In the event that any Damages to items due to Vandalism (physical Majeure attack by public, tampering of equipment by SMC / SSCDL staff and damage due to accidents) or due to Force Majeure events (such as earthquake, fire, natural calamities, war, act of God) of any kind during the contract period shall be the liability of SSCDL/SMC. In such case, SSCDL/Authority shall request the successful Bidder to repair/replace the damaged unit and reinstall the same. All costs towards the same shall be reimbursed by SSCDL/Authority to the successful Bidder less of insurance proceeds if need of replacement so arise then replacement shall be on tender rates only.

The System Integrator shall not be liable for forfeiture of its Performance Guarantee, imposition of liquidated damages or termination for default, if and to the extent that it's delay in performance or other failure to perform its obligations under the contract is the result of an event of Force Majeure. For purposes of this Clause, "Force Majeure" means an event beyond the "reasonable" control of the System Integrator, not involving the System Integrator's fault or negligence and not foreseeable. Such events may include Acts of God & acts of Government of India in their sovereign capacity.

For the SI to take benefit of this clause it is a condition precedent that the SI must promptly notify the SSCDL, in writing of such conditions and the cause thereof within 14 calendar days of the Force Majeure event arising. SSCDL, or the consultant / committee appointed by the SSCDL shall study the submission of the SI and inform whether the situation can be qualified one of Force Majeure. Unless otherwise directed by the SSCDL in writing, the SI shall continue to perform its obligations under the resultant Agreement as far as it is reasonably practical, and shall seek all reasonable alternative means for performance of services not prevented by the existence of a Force Majeure event.

In the event of delay in performance attributable to the presence of a force majeure event, the time for performance shall be extended by a period(s) equivalent to the duration of such delay. If the duration of delay continues beyond a period of 30 days, SSCDL and the SI shall hold consultations with each other in an endeavour to find a solution to the problem.

Notwithstanding anything to the contrary mentioned above, the decision of the SSCDL shall be final and binding on the SI.

7.44.22 Solvency certificate:

Valid Solvency Certificate amounting to minimum 20% of the consideration of the Contract from a scheduled/nationalized bank to be submitted by the bidder along with technical proposal. Bidder may resort to submitting a solvency certificate of higher value to keep its prices disguised.

7.44.23 The System Integrator will provide detailed system documentation to SSCDL/SMC. System Integrator will prepare the User Manuals incorporating details of all menus and functionality provided by the System. SMC expects the following (not limited to) in the form of product documents. Key documents required are: -

a. Detailed Design document detailing Technical Architecture

b. Detailed Database Design Document defining Database architecture, Data structure, Data dictionary, etc.

c. Data Architecture, Interface architecture and Integration architecture.

d. Configuration Documentation: consisting of system setting and parameters for each function modules.

e. User Manual including system instruction and use cases, running of a program to perform specific task in the system with sample reports, screen formats, details of menus & instructions on how to perform specific tasks in the system using screenshots etc.

f. Any other documentation required for usage and maintenance of implemented solution like Technical Manual, Installation Guides etc.

g. System operational procedure manuals.

h. System Administration manual indicating the system settings for each module

7.44.24 Fraud and Corruption

(a) During the bidding process or during the contract period, if any bidder is found involved in fraudulent and corrupt practices, SSCDL/HSCC reserves the right to reject the bid or cancel the contract, forfeiting the EMD and security deposit.

(b) The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Selection Process. Notwithstanding anything to the contrary contained in this RFP, SSCDL/SMC shall reject a proposal without being liable in any manner whatsoever to the Bidder, if it determines that the Bidder has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the "Prohibited Practices") in the Selection Process. In such an event, SSCDL/SMC shall, without prejudice to its any other rights or remedies, forfeit and appropriate the Bid Security or Performance Security, as the case may be, as mutually agreed genuine pre-estimated compensation and damages payable to the Authority for, inter alia, time, cost and effort of the Authority, in regard to the RFP, including consideration and evaluation of such Bidder's Proposal.

(c) Without prejudice to the rights of the SSCDL/SMC and the rights and remedies which SSCDL/HSCC may have under the LOI/LOA or the Agreement, if a Bidder is found by the Authority to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Selection Process, or after the issue of the LOI/Work Order or the execution of the Agreement, such Bidder shall be debarred or blacklisted, as the case may be, is found by the authority to have directly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as the case may be.

7.44.25 It shall be deemed that by submitting the Proposal, the Bidder agrees and releases the Authority, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/ or performance of any obligations hereunder, pursuant hereto and/ or in connection with the Bidding Process and waives, to the fullest extent permitted by applicable laws, any and all rights and/or claims it may have in this respect, whether actual or contingent, whether present or in future.

7.44.26 Nothing contained in the RFP shall be construed or interpreted as constituting a partnership between the Parties. Neither Party shall have any authority to bind the other in any manner whatsoever.

7.44.27 The selected bidder shall be deemed to be acting as an independent contractor of Authority and shall not be deemed an agent, legal representative, joint venture, or partner of Authority. Neither party is authorized to bind the other to any obligation, affirmation, or commitment with respect to any other person or entity.

7.44.28 The authority, in its sole discretion and without incurring any obligation or liability, reserves the right, at any time to:

a) suspend and/ or cancel the Bidding Process and/ or amend and/ or supplement the Bidding Process or modify the dates or other terms and conditions relating thereto;

b) consult with any Bidder in order to receive clarification or further information;

c) retain any information and/ or evidence submitted to the Authority by, on behalf of, and/ or in relation to any Bidder; and/ or

d) Independently verify, disqualify, reject and/ or accept any and all submissions or other information and/ or evidence submitted by or on behalf of any Bidder.

7.44.29 Security and safety

- The System Integrator will be responsible to enforce security measures to adequately protest system from authorised access or data theft/loss or against any other security threats.
- System Integrator shall comply with the information technology security and standard policies in force from time to time as recommended by any statutory authority or by SMC/SSCDL or that are issued during the course of engagement under this RFP.
- System Integrator shall use reasonable endeavours to report forthwith in writing to all the partners / contractors about the civil and criminal liabilities accruing due to by unauthorized access (including unauthorized persons who are employees of any Party) or interference with SSCDL's data, facilities or Confidential Information.
- The System Integrator shall upon request by SSCDL or his/her nominee(s) participate in regular meetings when safety and information technology security matters are reviewed.
- System Integrator and its partners / sub-contractors shall promptly report in writing to each other and SSCDL any act or omission which they are aware that could have an adverse effect on the proper conduct of safety and information technology security at SSCDL's Facilities.

7.44.30 Ownership and Licenses:

The ownership of all hardware/software developed/ customized/ configured/ procured as part of the project and related documentation for the project would always lie with the SSCDL/SMC. All licenses for software procured related to project have to be in the name of Surat Municipal Corporation. The bidder will be required to produce the Licenses/ATS/Warranty and other documents from the respective OEMs clearly mentioning the product name, quantity, duration, type of support, etc. The payment for the respective item will be subject to submission of the aforesaid documents to SSCDL/SMC.

7.44.31 Confidentiality

“Confidential Information" means all information including Project Data (whether in written, oral, electronic or other format) which relates to the technical, financial and operational affairs, business rules, citizen information, video footages, alert information, any police department data, products, processes, data, crime / criminal secrets, design rights, know-how and personnel of each Party and its affiliates which is disclosed to or otherwise learned by the other Party or its consortium partners or subcontractors (whether a Party to the contract or to the SLA) in the course of or in connection with the contract (including without limitation such information received during negotiations, location visits and meetings in connection with the contract or to the SLA) or pursuant to the contract to be signed subsequently.

Except with the prior written permission of SSCDL, the Systems Integrator (including all consortiums or partners) and its Personnel shall not disclose such confidential information to any person or entity not expected to know such information by default of being associated with the project, nor shall the Systems Integrator and its Personnel make public the recommendations formulated in the course of, or as a result of the Project.

7.44.32 Standards of Performance

The SI shall provide the services and carry out their obligations under the Contract with due diligence, efficiency and professionalism/ethics in accordance with generally accepted professional standards and practices. The SI shall always act in respect of any matter relating to this contract. The SI shall abide by all the provisions/Acts/Rules/Regulations, Standing orders, etc. of Information Technology or otherwise as prevalent in the country. The SI shall also conform to the standards laid down by SMC or SSCDL or Government of Gujarat or Government of India from time to time.

7.44.33 Care to be taken while working at Public Place

SI should follow instructions issued by concerned Competent Authority and SSCDL from time to time for carrying out work at public places. SI should ensure that there is no damage caused to any private or public property. In case such damage is caused, SI shall immediately bring it to the notice of concerned organization and SSCDL in writing and pay necessary charges towards fixing of the damage. SI should also ensure that no traffic congestion/public inconvenience is caused while carrying out work at public places.

SI shall ensure that its employees/representatives don't breach privacy of any citizen or establishment during the course of execution or maintenance of the project.

7.44.34 Compliance with Labor regulations

The SI shall pay fair and reasonable wages to the workmen employed by him, for the contract undertaken by him and comply with the provisions set forth under the Minimum wages Act and the Contract Labor Act 1970.

7.44.35 Independent Contractor

Nothing in this Agreement shall be construed as establishing or implying any partnership or joint venture or employment relationship between the Parties to this Agreement. Except as expressly stated in this Agreement nothing in this Agreement shall be deemed to constitute any Party as the agent of any other Party or authorizes either Party (i) to incur any expenses on behalf of the other Party, (ii) to enter into any engagement or make any representation or warranty on behalf of the other Party, (iii) to pledge the credit of or otherwise bind or oblige the other Party, or (iv) to commit the other Party in any manner whatsoever in each case without obtaining the other Party's prior written consent.

7.44.36 Waiver

A waiver of any provision or breach of this Agreement must be in writing and signed by an authorized official of the Party executing the same. No such waiver shall be construed to affect or imply a subsequent waiver of the same provision or subsequent breach of this Agreement.

7.44.37 Personnel/Employees

(a) Personnel/employees assigned by System Integrator to perform the services shall be employees of System Integrator or its sub-contractor (only for permitted activities) and under no circumstances will be considered as employees of SSCDL. System Integrator shall have the sole responsibility for supervision & control of its personnel & for payment of such personnel's/employee's entire compensation, including salary, legal deductions withholding of income taxes & social security taxes, worker's compensation, employee &

disability benefits & the like & shall be responsible for all employer obligations under all laws as applicable from time to time. The SSCDL shall not be responsible for the above issues concerning to personnel of System Integrator.

(b) System Integrator shall use its best efforts to ensure that sufficient System Integrator personnel are employed to perform the Services, & that, such personnel have appropriate qualifications to perform the Services. SSCDL or its nominated agencies shall have the right to require the removal or replacement of any system Integrator personnel performing work under this Agreement. In the event that SSCDL requests that any System Integrator personnel be replaced, the substitution of such personnel shall be accomplished pursuant to a mutually agreed upon schedule & upon clearance of the personnel based on profile review & upon schedule & upon clearance of the personnel based on profile review & personal interview by SSCDL or its nominated agencies, within not later than 30 working days. System Integrator shall depute quality team for the project & as per requirements, SSCDL shall have the right to ask System Integrator to change the team.

(c) Management (Regional Head / VP level officer) of System Integrator needs to be involved in the project monitoring & should attend the review meeting atleast once in a month.

(d) The profiles of resources proposed by System Integrator in the technical proposal, which are considered for Technical bid evaluation, shall be construed as 'Key Personnel' & the System Integrator shall not remove such personnel without the prior written consent of SSCDL. For any changes to the proposed resources, System Integrator shall provide equivalent or better resources (in terms of qualification & experience) in consultation with SSCDL.

(e) Except as stated in this clause, nothing in this Agreement will limit the ability of System Integrator freely to assign or reassign its employees; provided that System Integrator shall be responsible, at its expense, for transferring all appropriate knowledge from personnel being replaced to their replacements. SSCDL shall have the right to review & approve System Integrator's plan for any such knowledge transfer. System Integrator shall maintain the same standards for skills & professionalism among replacement personnel as in personnel being replaced.

(f) Each Party shall be responsible for the performance of all its obligations under this Agreement & shall be liable for the acts & omissions of its employees & agents in connection therewith.

7.44.38 Insurance Policies

7.44.38.1 Employer's Risks

The Employer's risks are:

(a) (i) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,

(ii) rebellion, revolution, insurrection, or military or usurped power, or civil war,

(iii) ionising radiations, or contamination by radio-activity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radio-active toxic explosive, or other hazardous properties of any explosive nuclear assembly or nuclear component thereof,

(iv) pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speed,

(b) loss or damage due to the use or occupation by the Employer of any Section or part of the Permanent Works, except as may be provided for in the Contract,

(c) loss or damage to the extent that it is due to the design of the Works, other than any part of the design provided by the agency/firm or for which the agency/firm is responsible,

and

(d) any operation of the forces of nature (insofar as it occurs on the site) which an experienced agency/firm:

(i) could not have reasonably foreseen, or

(ii) could reasonably have foreseen, but against which he could not reasonably have taken at least one of the following measures:

(A) prevent loss or damage to physical property from occurring by taking appropriate measures, or

(B) insure against.

7.44.38.2 Insurance of Works and Agency/firm's Equipment

The agency/firm shall, without limiting his or the Employer's obligations and responsibilities under Clause 7.44.38.1 insure:

(a) The Works, with materials for incorporation therein, to the full replacement cost and it being understood that such insurance shall provide for compensation to be payable to rectify the loss or damage incurred.

(b) an additional sum of 15 percent of such replacement cost to cover any additional costs of and incidental to the rectification of loss or damage including professional fees and the cost of demolishing and removing any part of the Works and of removing debris of whatsoever nature, and it being understood that such insurance shall provide for compensation to be payable to rectify the loss or damage incurred.

(c) the agency/firm's Equipment and other things brought onto the Site by the agency/firm, for a sum sufficient to provide for their replacement at the Site.

The insurance under clause 7.44.38.2 shall be issued by an insurance company which has been determined by the agency/firm to be acceptable to the Consultant.

7.44.38.3 Scope of Cover

The insurance in paragraphs (a) and (b) of Sub-Clause 7.44.38.2 shall be in the joint names of the agency/firm and the Employer and shall cover:

(a) the Employer and the agency/firm against all loss or damage from whatsoever cause arising (including natural calamities, earthquake, subsidence, landslide, rock slide, flood, storm, cyclone, fire, theft, burglary, strike, riot, sabotage, terrorism), other than as provided in Sub- Clause 7.44.38.5, from the commencement date until the date of issue of the relevant Taking-Over Certificate in respect of the Works or any Section or part thereof as the case may be, and

(b) the agency/firm for his liability:

(i) Till the handing over of the project to SMC for any loss or damage arising from a cause occurring prior to the commencement of the OEM warranty/operation & maintenance period, and

(ii) for any loss or damage occasioned by the agency/firm in the course of any operations carried out by him for the purpose of complying with his obligations during the execution of the project.

It shall be the responsibility of agency/firm to notify the Insurance Company of any change in the nature and extent of the works and to ensure the adequacy of the Insurance cover at all times during the period of contract.

7.44.38.4 Responsibility for Amounts not Recovered

Any amounts not insured or not recovered from the insurers shall be borne by the **Employer** or the agency/firm in accordance with their responsibilities Clause 7.44.38.1.

7.44.38.5 Exclusions

There shall be no obligation for the insurance in Sub-Clause 7.44.38.2 to include loss or damage caused by the risks listed as defined in RFP.

If the agency/firm receives instructions from the **Employer** to insure against War Risk, such insurance if normally available shall be effected, at the cost of the **Employer,** with an Insurance Company acceptable to the Consultant and shall be in the joint names of the agency/firm and the **Employer.**

7.44.38.6 Damage to Persons and Property

The Agency/firm shall, except if and so far as the Contract provides otherwise, indemnify the **Employer** against all losses and claims in respect of:

(a) death of or injury to any person, or

(b) loss or damage to any property (other than the Works) :

Which may arise out of or in consequence of the execution and completion of the Works and the remedying of any defects therein, and against all claims, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto, subject to the exceptions defined in Sub-Clause-7.44.38.7.

7.44.38.7 Exceptions

The "exceptions" referred to in Sub-Clause 7.44.38.6 are:

(a) the permanent use or occupation of land by the Works, or any part thereof,

(b) the right of the **Employer** to execute the Works, or any part thereof, on, over, under, in or through any land,

(c) damage to property which is the unavoidable result of the execution and completion of the Works, or the remedying of any defects therein, in accordance with the Contract.

(d) death of or injury to persons or loss of or damage to property resulting from any action or neglect of the **Employer**, his agents, servants or other agency/firms, not being employed by the agency/firm, or in respect of any claims, proceedings, damages, costs, charges and expenses in respect thereof or in relation thereto or, where the injury or damage was contributed to by the agency/firm, his servants or agents, such part of the said injury of damage as may be just and equitable having regard to the extent of the responsibility of the **Employer,** his servants or agents or other agency/firms for the injury or damage.

7.44.38.8 Indemnity by Employer

The **Employer** shall indemnify the agency/firm against all claims, proceedings, damages, costs, charges and expenses in respect of the matters referred to in the exceptions defined in Sub-Clause 7.44.38.7.

7.44.38.9 Third Party Insurance (Including Employer's Property)

The agency/firm shall, without limiting his or the **Employer's** obligations and responsibilities under Clause 7.44.38.6 to 7.44.38.8, insure, in the joint names of the agency/firm and the **Employer**, against liabilities for death of or injury to any person (other than as provided in Clause 7.44.38.12/ to 7.44.38.13 or loss of or damage to any property (other than the Works) arising out of the performance of the Contract other than the exceptions defined in paragraphs (a), (b) and (c) of Sub-Clause 7.44.38.7.

7.44.38.10 Minimum Amount of Insurance

Such insurance shall be for at least the amount stated in Clause 7.44.38.2 above.

7.44.38.11 Cross Liabilities

The insurance policy shall include a cross liability clause such that the insurance shall apply to the agency/firm and to the **Employer** as separate insured.

7.44.38.12 Accident or Injury to Workmen

The **Employer** shall not be liable for or in respect of any damages or compensation payable to any workman other than for death or injury resulting from any act or default of the **Employer**, his agents or servants. The agency/firm shall indemnify and keep indemnified the **Employer** against all such damages and compensation, other than those for which the **Employer** is liable as aforesaid, and against all claims, proceedings, damages, costs, charges, and expenses whatsoever in respect thereof or in relation thereto.

7.44.38.13 Insurance against Accident to Workmen

The agency/firm shall insure against such liability and shall continue such insurance during the whole of the time that any persons are employed by him on the Works. Provided that, in respect of any persons employed by any Sub agency/firm, the agency/firm's obligations to insure as aforesaid under this Sub-Clause shall be satisfied if the Sub agency/firm shall have insured against the liability in respect of such persons in such manner that the **Employer** is indemnified under the policy, but the agency/firm shall require such Sub agency/firm to produce to the Consultant, when required, such policy of insurance and the receipt for the payment for current premium.

7.44.38.14 Evidence and Terms of Insurance

The agency/firm shall provide evidence to the Consultant as soon as practicable after the respective insurance have been taken out but, in any case, prior to the start of work at the Site that insurance required under the Contract have been affected and shall, within 84 days of the Commencement Date, provide the insurance policies to the **Employer**. When providing such evidence and such policies to the **Employer**, the agency/firm shall notify the **Engineer** of so doing. Such insurance policies shall be consistent with the general terms agreed prior to the issue of the Letter of Acceptance. The agency/firm shall effect all insurance for which he is responsible with insurers and in terms approved by the Consultant.

7.44.38.15 Adequacy of Insurance

The agency/firm shall notify the insurers of changes in the nature, extent or programme for the execution of the Works and ensure the adequacy of the insurance at all times in accordance with the terms of the Contract and shall, when required, produce to the Consultant the insurance policies in force and the receipts for payment of the current premiums.

7.44.38.16 Remedy on Agency/firm's Failure to Insure

If the agency/firm fails to effect and keep in force any of the insurance required under the Contract, or fails to provide the policies to Consultant within the period required by Sub-Clause 3.11.48.14, then and in any such case the **Employer** may effect and keep in force any such insurance and pay any premium as may be necessary for that purpose and from time to time deduct the amount so paid from any monies due or to become due to the agency/firm, or recover the same as a debt due from the agency/firm.

7.44.38.17 Compliance with Policy Conditions

In the event that the agency/firm or the **Employer** fails to comply with conditions imposed by the insurance policies effected pursuant to the Contract, each shall indemnify the other against all losses and claims arising from such failure.

The agency/firm shall be entitled to place all insurance relating to the Contract (including, but not limited to, the insurance referred to in Clauses 7.44.38.2 to 7.44.38.5, 7.44.38.9 to 7.44.38.11 and 7.44.38.12 to 7.44.38.13) with insurers from India.

8. General Instructions on Preparation of Technical Proposal

1. Bidders have to submit a very structured and organized technical bid, which will be analysed by the SSCDL for different compliances with regards to the requirements of the project. The document submitted must be searchable and well indexed without any handwritten material. The quality and completeness of the information submitted by the Bidder will matter a lot. All the documents must be submitted in one file only.
2. Bidder is expected to divide its Bid in following sections / documents:

a. Bidder's Competence to execute the project

- This document should bring about the capability of the firm to execute this project. Bidder to submit the supporting documents for all parameters as mentioned in the section 4, and various technical and functional requirements specified under this RFP.

b. Technical Proposal: Bidders have to submit a structured and organized technical proposal, which will be analysed by SSCDL for different compliances with regards to the requirements of the project. Each point listed below must be provided in detail with the necessary supporting documents and assumptions. Information to be included by the bidders in their Technical Proposal is as follows:

- Understanding of the Project Scope
- Solution Architecture
- Approach & Methodology for design, Supply, Installation, Commissioning, Go live and maintenance during comprehensive onsite warranty support.
- Approach and Methodology for Management of SLA Requirements specified in the bid. Bidder is required to clearly articulate how the SLA requirements would be adhered.
- Detailed Project Plan with timelines, resource allocation, milestones etc. for supply, installation and commissioning of the various project components.
- Risk Mitigation plan

c. Other Details

- **Bill of Material:** This document should give details of all the proposed IT and non-IT components without specifying the costs. Please note that the bid shall get disqualified if Bidder gives price details in the technical document.
- **Make and Model of all Components as per the format mentioned in Form-1.12(A)**
- **Compliance to Technical and Functional Specifications from the Bidder:** The bidder (in case of consortium prime bidder) is required to provide the Compliance to Technical and Functional Specifications in form of undertaking duly signed and stamped from authorized signatory for all the items as mentioned in Section 11.2 Minimum Technical Specification The compliances should be submitted in original or notarized.
- **Compliance to Technical and Functional Specifications from the Bidder and OEM:** The bidder must provide the Compliance to Technical and Functional Specifications for all the items as mentioned in Section 11.2 Minimum Technical Specification from respective OEMs on OEM's letter head duly signed by authorised signatory of OEM. The compliances should be submitted in original or notarized.

- **Authorization letter from OEM**: The bidder must submit the authorisation from the OEM as per the format mentioned in Form 1.11 The authorization letter from OEM should be in original or notarized.
- **Datasheets:** The bidder must submit the Datasheets highlighting the Technical Specification mentioned in Section 11.2 Minimum Technical Specification parameters for all components so as to derive the technical compliance of the proposed product with the technical specifications of the RFP.

9. Formats for Pre-Qualification Bid

9.1 CHECKLIST FOR PRE- QUALIFICATION DOCUMENT

#	Documents to be submitted	Submitted (Y / N)	Documentary Proof (Page No.)
1.	Bid fee of Rs.21,240 [Rs. 18,000 + 18% GST] by Demand Draft or Banker's Cheque		
2.	EMD of Rs. 25,00,000 as per section 7.12		
3.	Bid Covering Letter (Form-1.1)		
4.	Power of attorney / board resolution to the authorized Signatory of the RFP (in case of consortium, all members to submit) (Form-1.2)		
5.	Particulars of the Bidders (Form-1.3)		
6.	Copy of Certificate of Incorporation/Registration certificate/ Shop & Establishment Certificate (To be submitted for all applicable entities as per eligibility criteria for OEM, Bidder and sub-contractor)		
7.	Details of Annual Turnover and Net worth for last three financial years (Form-1.4) (To be submitted for all applicable entities as per eligibility criteria for OEM& Bidder)		
8.	Certificate from the Statutory auditor / CA clearly specifying the annual turnover and Net worth for the specified years (Form-1.5) (to be submitted for all applicable entities as per eligibility criteria for OEM& Bidder)		
9.	Declaration letter that the firm is not blacklisted by Central Government or any State Government organization / PSU in India at the time of submission of the Bid, in the format given in the RFP (Form-1.6).		

	(To be submitted for all applicable entities as per eligibility criteria for OEM, Bidder and sub-contractor)		
10.	Affidavit on Non-judicial Rs 300 stamp paper (Form-1.7). In case of consortium, all members to submit.		
11.	Summary of the projects executed (Form-1.8) (To be submitted for all applicable entities as per eligibility criteria for OEM, Bidder and sub-contractor)		
12.	Details of the projects executed (Form-1.8A for Bidder and Form-1.8B for OEM) (To be submitted for all applicable entities as per eligibility criteria for OEM, Bidder and sub-contractor)		
13.	Copy of work orders and client certificate (To be submitted for all applicable entities as per eligibility criteria for OEM, Bidder and sub-contractor)		
14.	Copy of Audited Balance Sheet for last three financial years (To be submitted for all applicable entities as per eligibility criteria for OEM, Bidder and sub-contractor)		
15.	Copy of the audited Profit & Loss Statements for last three financial years (To be submitted for all applicable entities as per eligibility criteria for OEM, Bidder and sub-contractor)		
16.	Copy of GST registration. In case of consortium, all members to submit		
17.	Copy of PAN registration. In case of consortium, all members to submit		
18.	Power of Attorney for Prime Bidder of Consortium (Form-1.9)		
19.	Valid Solvency Certificate amounting minimum 20% of the consideration of the Contract from a scheduled / nationalized bank (Form-1.10)		
20.	Consortium Agreement with clear defining roles and responsibilities of each consortium partner		
21.	Declaration & Authorization by OEM to bidder/sub-contractor (Form-1.11)		

22.	Declaration from HMIS OEMs w.r.t. OEM Eligibility Criteria (Form-1.12)		
23.	Unpriced BoQ including Make & Model table as per Form 1.12(A)		
24.	Roles & Responsibility Bifurcation as per Form 1.15		
25.	Copy of work orders and client certificate for Sub-Contractor's Eligibility Criteria		

Note:

- All Pre-qualification bid document(s)/ details should be duly sealed & signed as required.

FORM –1.1: COVERING LETTER

<<To be printed on bidder company's letterhead and signed by Authorized signatory>>

Date: dd/mm/yyyy

To
Chief Executive Officer,
Surat Smart City Development Ltd.
115, Smart City Cell,
Surat Municipal Corporation – Head Quarter,
Muglisara, Main Road, Surat – 395003, Gujarat.

Sub.: RFP for Selection of System Integrator for Development of Integrated IT Infrastructure (HMIS, PACS, QMS, Network Infrastructure) for Hospitals & Health Centres under Surat Municipal Corporation (SMC)

Ref.: RFP No. : SSCDL-eHealth-RFP-02-2022

Dear Sir/ Madam,

Having examined the Bid Document (and the clarification / corrigendum issued thereafter, if any), the receipt of which is hereby duly acknowledged, we, the undersigned, offer to provide the professional services as required and outlined in the Bid Document for the ***"RFP for Selection of System Integrator for Development of Integrated IT Infrastructure (HMIS, PACS, QMS, Network Infrastructure) for Hospitals & Health Centres under Surat Municipal Corporation (SMC)"*** in Surat City. We attach hereto our responses to pre-qualification, technical qualification & commercial proposals as required by the Bid Document. We confirm that the information contained in these responses or any part thereof, including the exhibits, and other documents and instruments delivered or to be delivered to SSCDL/SMC, is true, accurate, verifiable and complete and nothing has been concealed or tampered with. This response includes all information necessary to ensure that the statements therein do not in whole or in part mislead SSCDL/SMC in its shortlisting process.

We fully understand and agree to comply that on verification, if any of the information provided here is found to be misleading the selection process, we are liable to be dismissed from the selection process or termination of the contract during the project, if selected to do so and SSCDL/SMC is free to take legal action against us for submitting such misleading information.

We agree for unconditional acceptance of all the terms and conditions set out in the Bid Document (& subsequent clarification / corrigendum, if any) document and also agree to abide by this tender response for a period of 180 days from the Bid Opening date. We hereby declare that in case the contract is awarded to us, we shall submit the contract performance guarantee bond in the form prescribed the Bid Document.

We agree that you are not bound to accept any tender response you may receive. We also agree that you reserve the right in absolute sense to reject all or any of the products/ services specified in the tender response.

It is hereby confirmed that I/We are entitled to act on behalf of our company/ corporation/ firm/ organization and empowered to sign this document as well as such other documents, which may be required in this connection.

Signature of Authorized Signatory (with official seal)
Name :
Designation :
Address :
Telephone& Fax :
E-mail address :

FORM –1.2: FORMAT FOR POWER OF ATTORNEY FOR SIGNING OF THE PROPOSAL

(To be submitted on a 300-rupee stamp paper)

(Applicable in case of bid not being signed by the person directly authorized by Board of firm. In the latter case, please provide a copy of the relevant Board Resolution signed by Company Secretary/ Director authorizing the Signatory. Bidder may use their own format for Power of Attorney provided it captures the same authorization)

Dated:

To,
Chief Executive Officer,
Surat Smart City Development Limited (SSCDL)
1st Floor, South Zone Office, Surat Municipal Corporation,
Opp. Satyanagar, Udhna, Surat-394210, Gujarat, India.

Dear Sir,

REF: RFP No. SSCDL-eHealth-RFP-02-2022

<Bidder's name> _____ hereby authorizes **<Designated Representative's name>**_____to act as a representative of **<Bidder's name>**_____ for the following activities vide its Board Resolution/ Power of Attorney attached herewith.

To attend all meetings with Surat Smart City Development Limited or other entities associated with this project including Surat Municipal Corporation and to discuss, negotiate, finalize, and sign any bid or agreement and contract related to RFP for Selection of Qualified Bidder for Implementation of eHealth Project for SSCDL/SMC.

Yours faithfully,

<Signature of appropriate authority of the Bidder >

Name of appropriate authority of the Bidder:

<Signature and name of the Designated Representative of the Bidder for acceptance of this Power of Attorney>

For

<Name of Bidder >Encl: Board Authorization

Notarised

FORM –1.2 (A): JOINT BIDDING AGREEMENT

(To be submitted on a 300-rupee stamp paper by each member of consortium separately)

The Bidder shall be required to submit Joint Bidding Agreement (Memorandum of Understanding) on Requisite Stamp Paper in case Bidder is a Consortium. Such Agreement shall specify followings:

a) Identity Prime Member and Power of Attorney in favor of Prime Member

b) Clear roles and responsibilities of each consortium partner, the identification of the lead partner, and providing for joint and several liability for each partner

c) All consortium members would be available throughout the Contract Period

d) Include a statement to the effect that all members of the Consortium shall be liable jointly and severally for all obligations/Scope of Work in relation to the Project during the contract period.

e) The role and responsibility of any member must be commensurate with the technical/financial capabilities that such member is contributing towards meeting the qualification criteria. Each consortium member is liable to contribute resources in terms of knowledge, skills, and trained manpower commensurate with its role and responsibilities and terms of RFP throughout the contract period including support period.

f) No change in composition of the Consortium shall be permitted during the Bidding Process and during the Contract Period, in case the Project is awarded to the Consortium. The Consortium Agreement must also state that the period of the Agreement would coincide with the Contract period. Consortium must continue to be in existence during the period of the contract and that any change will be subject to approval of the Authority (SSCDL) only.

g) The Consortium Agreement must also state that the period of the Agreement would coincide with the Contract period. Consortium must continue to be in existence during the period of the contract and that any change will be subject to approval of the Authority (SSCDL) only.

h) The Agreement should be on stamp paper and notarized. The signatories must be duly authorized.

i) Any modification in roles and responsibilities between consortium members during Contract Period shall be allowed only after approval from SSCDL. Any changes and deviation of roles and responsibilities of consortium members during the execution, and comprehensive onsite warranty support of this Project without prior approval of Authority shall be viewed seriously by the SSCDL as it can affect an important public service. Such unilateral action by the SI shall entitle SSCDL to take appropriate action including considering it an Event of Default under this Contract leading to consequences including termination with appropriate notice.

j) Any Dispute arising during Contract Period between the Consortium Member shall be resolved amicably without adversely impacting Project Implementation and Operation. If in SSCDL's opinion, Dispute between Consortium members adversely impacting implementation and operation of the Project then Authority may its sole discretion in the interest of the Project Terminate the Contract after due process and/or Provide a binding solution.

k) In case SSCDL Intends to proceed for Termination on account of SI Event of Defect and /or unresolved disputes between the Consortium Members, both the Consortium

Members shall be jointly and severally liable for Implementation and comprehensive onsite warranty support of project at Agreed prices and payment terms specified in this Tender till Authority or any new agency appointed by it takes over the Project

l) SSCDL reserves the right to reject the Bid in case of change in the constitution of the consortium after the submission of Bid and before the execution of the Agreement

FORM-1.3: BIDDER INFORMATION FORMAT

<<To be printed on prime bidder company's letterhead and signed by Authorized signatory>>

To whomsoever it may concern,

Bidder information Format

Please find below the details of lead bidder and other consortium members for participation in ***"Selection of System Integrator for Development of Integrated IT Infrastructure (HMIS, PACS, QMS, Network Infrastructure) for Hospitals & Health Centres under Surat Municipal Corporation (SMC)"***

#	Particulars	Sole Bidder / Prime Bidder (Consortium Member #1)	(Consortium Member #2)
1	Name of the organization		
2	Type of Organization (Pvt. Ltd/ Public Limited/LLP)		
3	Country of registered Office		
4	Address of Registered office		
5	Company Registration Details		
6	Date of Registration		
7	PAN No		
8	GST Registration No		
9	Address of Registered office in India		
10	No of years of operations in India		
11	Authorized Signatory Name		
12	Authorized Signatory Designation		
13	Authorized Signatory Contact Details		

Contact Details of officials for future correspondence regarding the bid process:

Details	Authorized Signatory	Secondary Contact
Name		
Title		
Company Address		
Mobile		

Fax		
Email Id		

Yours Sincerely,

Signature of Authorized Signatory (with official seal)

Name :

Designation :

Address :

Telephone& Fax :

E-mail address :

FORM-1.4: BIDDER'S ANNUAL TURNOVER OVER

<<To be printed on bidder company's letterhead and signed by Authorized signatory. In case of Consortium all members are required to submit >>

Date: dd/mm/yyyy

To
Chief Executive Officer,
1st Floor, South Zone Office,
Surat Municipal Corporation,
Opp. Satyanagar, Udhna,
Surat-394210, Gujarat, India

Sub.: RFP for Selection of System Integrator for Development of Integrated IT Infrastructure (HMIS, PACS, QMS, Network Infrastructure) for Hospitals & Health Centres under Surat Municipal Corporation (SMC)
Ref.: RFP No. : SSCDL-eHealth-RFP-02-2022

Sir/ Madam,

I have carefully gone through the Terms & Conditions contained in the above referred RFP Document.

I hereby declare that below are the details regarding Overall turnover over last 3 financial years for our organization.

#	Details	FY 2018-19 (i)	FY 2019-20 (ii)	FY 2020-21 (iii)	Average Turnover [(i)+(ii)+(iii)/3]
1	Overall Annual Turnover				

I further certify that I am competent officer in my company to make this declaration.

Yours Sincerely,

Signature of Authorized Signatory (with official seal)

Name :

Designation :

Address :

Telephone& Fax :

E-mail address :

FORM-1.5: AUDITOR'S/CA CERTIFICATE FOR TURNOVER

<<To be printed on CA/Auditors company's letterhead and signed by Authorized signatory>>
(NOTE: To be filed by sole bidder/each member company in case of a consortium and OEM in compliance to Basic Eligibility Criteria>>

Date: dd/mm/yyyy

This is to certify that the Annual Turnover from ICT and Net worth as per books and records of _____ for the following financial years are as under.

#	Financial Year Ending	Annual Turnover (INR)	Net worth
1.	31st March, 2019		
2.	31st March, 2020		
3.	31st March, 2021		
	Average Turnover		

I further certify that I am competent officer in my company to make this declaration.

Yours Sincerely,

Signature of Auditor (with official seal)

Name :

Designation :

Address :

Telephone& Fax :

E-mail address :

FORM –1.6: SELF-DECLARATION – NO BLACKLISTING

<<To be printed on respective company's letterhead and signed by Authorized signatory>

(NOTE: To be filed by sole bidder/each member company in case of a consortium and OEM in compliance to Basic Eligibility Criteria>>

Date: dd/mm/yyyy

To
Chief Executive Officer,
1st Floor, South Zone Office,
Surat Municipal Corporation,
Opp. Satyanagar, Udhna,
Surat-394210, Gujarat, India.

Sub.: RFP for Selection of System Integrator for Development of Integrated IT Infrastructure (HMIS, PACS, QMS, Network Infrastructure) for Hospitals & Health Centres under Surat Municipal Corporation (SMC)
Ref.: RFP No. : SSCDL-eHealth-RFP-02-2022

Sir/Madam,

In response to the Tender Ref. No. _____ dated _____ **Selection of System Integrator for Implementation of eHealth Project for Surat Municipal Corporation**, as an owner/ partner/ Director of _____, I/ We hereby declare that presently our Company/ firm _____is not blacklisted or debarred by Central Government/State Government or any other autonomous institution as on the date of Bid Submission nor any proceedings for blacklisting has been initiated by Central Government/State Government or any other autonomous institution as on the date of Bid Submission. I/we also declare that our firm has not been convicted for any criminal offense.

If this declaration is found to be incorrect then without prejudice to any other action that may be taken, my/ our security may be forfeited in full and the tender if any to the extent accepted may be cancelled.

Name of the Bidder :
Authorized Signatory :
Seal of the Organization :
Business Address :
Date :
Place :

FORM –1.7: AFFIDAVIT

The affidavit format as indicated below to be furnished on non-judicial stamp paper of Rs. 300 (duly notarized) by bidder (or each member of consortium, in case of consortium)

Sub.: RFP for Selection of System Integrator for Development of Integrated IT Infrastructure (HMIS, PACS, QMS, Network Infrastructure) for Hospitals & Health Centres under Surat Municipal Corporation (SMC)

Ref.: RFP No. : SSCDL-eHealth-RFP-02-2022

1. I, the undersigned, do hereby certify that all the statements made in the required attachments are true and correct.

2. The undersigned also hereby certifies that neither our firm M/s …….

……. nor any of its constituent partners have abandoned any work in India nor any contract awarded to us for such works has been rescinded during last five years, from the date of this bid submission I hereby certify that presently our Company is not blacklisted or debarred by any Government / PSU on the date of Bid Submission.

3. The undersigned hereby authorize(s) and request(s) any bank, person, authorities, government or public limited institutions, firm or corporation to furnish pertinent information deemed necessary and requested by the SSCDL/SMC to verify our statements or our competence and general reputation.

4. The undersigned hereby declares that I have read clause regarding restriction on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries.

I certify that M/s <<name of Company>> is not from such a country.

OR

I certify that M/s <<name of Company>> belongs to such a country and has been registered with the Competent Authority (i.e. Registration committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT)) and the copy of valid registration from competent authority has been attached in this regard.

I on behalf of M/s <<name of Company>> further undertake that we will not subcontract any work to a contractor from such countries unless such contractor is registered with the Competent Authority.

I hereby certify that M/s <<name of Company>> fulfils all requirements in this regard and is eligible to be considered.

5. The undersigned understands and agreed that further qualifying information may be requested and agrees to furnish any such information at the request of the SSCDL/SMC.

6. We hereby confirm that all the components/parts/assembly which we shall supply on award of contract shall be original new components /parts/assembly/software from respective OEMs of the products and that no refurbished/duplicate/ second hand components/parts/ assembly shall be used.

7. The SMC/SSCDL and its authorized representative are hereby authorized to conduct any inquiries or investigations to verify the statements, documents, and information submitted in connection with

this application and to seek clarification from our bankers and clients regarding any financial and technical aspects. This Affidavit will also serve as authorization to any individual or authorized representative of any institution referred to in the supporting information, to provide such information deemed necessary and requested by you to verify statements and information provided in the tender or with regard to the resources, experience and competence of the Applicant.

8. My/our offer shall not be considered in case of fake/ forged document(s) found during verification at any stage or at any stage of contract. I/ We are agreed to whatever action (s) taken by competent authority of corporation in the aforesaid circumstances such as forfeiture of security deposit and debarring from participation in future tenders for the period/ years as deemed fit by the corporation and informing the same to all other state/ central level Government/ semi government organizations.

Signed by the Authorized Signatory of the firm _____

Title of the office: _____

Name of the firm: _____

Date: _____

FORM –1.8: EXPERIENCE STATEMENT

<<Note: ***To be filled for separately for Prime Bidder, consortium Member and sub-contractor companies*****>>**

Date: dd/mm/yyyy

To
Chief Executive Officer,
1st Floor, South Zone Office,
Surat Municipal Corporation,
Opp. Satyanagar, Udhna,
Surat-394210, Gujarat, India

Sub.: RFP for Selection of System Integrator for Development of Integrated IT Infrastructure (HMIS, PACS, QMS, Network Infrastructure) for Hospitals & Health Centres under Surat Municipal Corporation (SMC)
Ref.: RFP No. : SSCDL-eHealth-RFP-02-2022

Sir/Madam,

I have carefully gone through the Terms & Conditions contained in the above referred RFP. I hereby declare that below are the details regarding relevant work that has been taken up by our company and all the consortium members.

Name of the Project	Prime Bidder				
	Project 1	Project 2	Project 3	-	Project n
General Information					
Client for which the project was executed					
Name of the client contact person(s)					
Designation of client contact person(s)					
Contact details of the client contact person(s)					
Project Details					
Description of the project					
Scope of work of the Bidder					
Deliverables of the Bidder					
Outcomes of the project					
Other Details					
Total cost of the project					
Total cost of the services provided by the Bidder					
Duration of the project (number of months, start date, completion date, current status)					
Other relevant information (Like number of Cameras and Type of Camera, ANPR etc)					
Mandatory Supporting Documents:					
Work order / Contract for the project/ Purchase Order					

Name of the Project	Prime Bidder				
	Project 1	Project 2	Project 3	-	Project n
Client Certificate giving present status of the project and view of the quality of services by the Bidder					

Name of the Project	Consortium Member	
	Project 1	Project n
General Information		
Client for which the project was executed		
Name of the client contact person(s)		
Designation of client contact person(s)		
Contact details of the client contact person(s)		
Project Details		
Description of the project		
Scope of work of the Bidder		
Deliverables of the Bidder		
Outcomes of the project		
Other Details		
Total cost of the project		
Total cost of the services provided by the Bidder		
Duration of the project (number of months, start date, completion date, current status)		
Other relevant information (Like number of Cameras and Type of Camera, ANPR etc)		
Mandatory Supporting Documents:		
Work order / Contract for the project/ Purchase Order		
Client Certificate giving present status of the project and view of the quality of services by the Bidder		

Name of the Project	Sub-Contractor	
	Project 1	Project n
General Information		
Client for which the project was executed		
Name of the client contact person(s)		
Designation of client contact person(s)		
Contact details of the client contact person(s)		
Project Details		
Description of the project		
Scope of work of the Bidder		
Deliverables of the Bidder		
Outcomes of the project		
Other Details		
Total cost of the project		
Total cost of the services provided by the Bidder		

Name of the Project	Sub-Contractor	
	Project 1	Project n
Duration of the project (number of months, start date, completion date, current status)		
Other relevant information		
Mandatory Supporting Documents:		
Work order / Contract for the project/ Purchase Order		
Client Certificate giving present status of the project and view of the quality of services by the Bidder		

I further certify that I am competent officer in my company to make this declaration. The information submitted above is true and I am aware that submitting false information will lead to rejection of our bid and SSCDL/SMC can take appropriate action in this regard.

Yours Sincerely,

Signature of Authorized Signatory (with official seal)

Name :

Designation :

Address :

Telephone& Fax :

E-mail address :

Enclosure:

1. Copy of Purchase Order or Work Order or Agreement duly authenticated/ signed by the respective Client.

2. Completion Certificates/ Performance Certificate/ Project Acceptance Certificate/ Go-Live certificate from respective Client

3. In case of consortium, copy of the Consortium Agreement clearly specifying the Roles & Responsibility of the members

Note: *The supporting document must clearly indicate the requisite information like project cost / solution components / etc. to evaluate the project compliance with RFP criteria.*

FORM –1.8 (A): PROJECT STATEMENT BY BIDDER

[Project Title]

(To be submitted by bidder/consortium member on its letter head for projects claimed for Pre-Qualification)

(Attach separate sheet for each project)

A. Project Brief:

B. Client (Name, Address & Contact no.):

C. No. of beds:

D. Total number of hospitals:

E. Total number of health centres:

F. Brief of solution components (HMIS, QMS, PACS, etc.):

G. Cost of e-Health/HMIS application:

H. Go Live Date:

The information submitted above is true and I am aware that submitting false information will lead to rejection of our bid and SSCDL/SMC can take appropriate action in this regard.

(Sign & Stamped by authorized signatory)

- ***Enclosure:***
- *Copy of Purchase Order or Work Order or Agreement duly authenticated/ signed by the respective end Client to SI/implementing agency.*
- *Completion Certificates/ Performance Certificate/ Project Acceptance Certificate/ Go-Live certificate from respective Client*
- *In case of consortium, copy of the Consortium Agreement clearly specifying the Roles & Responsibility of the members*

Note: *The supporting document must clearly indicate the requisite information like project cost / solution components / etc. to evaluate the project compliance with RFP criteria.*

FORM –1.8 (B): PROJECT STATEMENT BY OEM

[Project Title]

(To be submitted by OEM on its letter head for projects claimed for OEM Pre-Qualification)

(Attach separate sheet for each project)

I. Project Brief:

J. Client (Name, Address & Contact no.):

K. No. of beds:

L. Total number of hospitals:

M. Total number of health centres:

N. Brief of solution components (HMIS, QMS, PACS, etc.):

O. Cost of e-Health/HMIS application:

P. Go Live Date:

Q. Name of the System Integrator/ Implementing agency:

The information submitted above is true and I am aware that submitting false information will lead to rejection of our bid and SSCDL/SMC can take appropriate action in this regard.

(Sign & Stamped by authorized signatory)

- ***Enclosure:***
- *License Agreement/Purchase Order by System Integrator/Implementing agency to OEM*
- *Copy of Purchase Order or Work Order or Agreement duly authenticated/ signed by the respective end Client to SI/implementing agency.*
- *Completion Certificates/ Performance Certificate/ Project Acceptance Certificate/ Go-Live certificate from respective Client*

Note: *The supporting document must clearly indicate the requisite information like project cost / solution components / etc. to evaluate the project compliance with RFP criteria.*

FORM-1.9: POWER OF ATTORNEY FOR LEAD MEMBER OF CONSORTIUM

<<To be printed on Rs. 300/- Stamp Paper >>

Whereas the Surat Municipal Corporation has invited applications from interested parties for the Selection for ***"RFP for Selection of System Integrator for Development of IT Infrastructure (HMIS, PACS, QMS, EMS, Network Infrastructure) for Surat Municipal Corporation (SMC) Hospitals & Health Centres at Surat, Gujarat"***.

Whereas .....and ..... (Collectively "Consortium") being Members of the Consortium are interested in bidding for the Project in accordance with the terms and conditions of the Request for Proposal (RFP document) and other connected documents in respect of the Project, and

Whereas, it is necessary for the Members of the Consortium to designate one of them as the Lead Member with all necessary power and authority to do for and on behalf of the Consortium, all acts, deeds and things as may be necessary in connection with the Consortium's bid for the Project and its execution.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS

We, ... Having our Registered office at .....,

M/s,..... Having our Registered office at .....,

(Hereinafter collectively referred to as the "Principals") do hereby irrevocably designate, nominate, constitute, appoint and authorize M/s. ..... having its registered office at ....., being one of the Members of the Consortium, as the Lead Member and true and lawful attorney of the Consortium (hereinafter referred to as the "Attorney"). We hereby irrevocably authorize the Attorney (with power to sub-delegate) to conduct all business for and on behalf of the Consortium and any one of us during the bidding process and, in the event the Consortium is awarded the concession/contract, during the execution of the Project and in this regard, to do on our behalf and on behalf of the Consortium, all or any of such acts, deeds or things as are necessary or required or incidental to the pre-qualification of the Consortium and submission of its bid for the Project, including but not limited to signing and submission of all applications, bids and other documents and writings, participate in bidders and other conferences, respond to queries, submit information/ documents, sign and execute contracts and undertakings consequent to acceptance of the bid of the Consortium and generally to represent the Consortium in all its dealings with the SSCDL, and/ or any other Government Agency or any person, in all matters in connection with or relating to or arising out of the Consortium's bid for the Project and/ or upon award thereof till the Concession Agreement is entered into with the SSCDL.

AND hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us/ Consortium.

IN WITNESS WHEREOF WE THE PRINCIPALS ABOVE NAMED HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS ..... DAY OF ....., 20....

For .....

(Signature)

.....

(Name & Title)

For .....

(Signature)

.....

(Name & Title)

Witnesses:

1.

2.

(Executants)

(To be executed by all the Members of the Consortium)

Notes:

- *The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.*
- *Also, wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a board or shareholders' resolution/power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.*

FORM –1.10: SOLVENCY CERTIFICATE

(FORM OF BANKERS' CERTIFICATE FROM A SCHEDULED BANK)

This is to certify that to the best of our knowledge and information that M/s. …… having marginally noted address, a customer of our bank are/is respectable and can be treated as good for any engagement upto a limit of Rs. …… (Rupees……). This certificate is issued without any guarantee or responsibility on the bank or any of the officers.

(Signature)

For the Bank

NOTE: -

Banker's certificates should be on letter head of the Bank, sealed in cover addressed to tendering authority.

FORM-1.11: MAF - FORMAT FOR AUTHORIZATION LETTERS FROM OEMS

<<To be printed on letter head of OEM and signed by Authorized signatory of OEM>>

Date: dd/mm/yyyy

To
Chief Executive Officer,
Surat Smart City Development Limited (SSCDL)
1st Floor, South Zone Office, Surat Municipal Corporation,
Opp. Satyanagar, Udhna, Surat-394210, Gujarat, India.

Sub.: Authorisation Letter from OEM for "RFP for Selection of System Integrator for Development of Integrated IT Infrastructure (HMIS, PACS, QMS, Network Infrastructure) for Hospitals & Health Centres under Surat Municipal Corporation (SMC)"
Ref.: RFP No. : SSCDL-eHealth-RFP-02-2022

Dear Sir/ Madam,

We_____ (Name of the OEM) who are established and reputable OEM of _____ (product proposed), do hereby authorize _____ (Name and address of the Bidder) to bid, negotiate and conclude the contract with you against RFP No. SSCDL-eHealth-RFP-02-2022for the below mentioned equipment/solution that has been manufactured/developed by us.

We authorized the _____ (name of the bidder) for the following equipment/solution components:

Sr. No.	Product Name	Make & Model
1		
2		
…		
N		

We herewith certify that the above-mentioned equipment/solution components are neither end of sale nor end of the life and we hereby undertake to support these equipment/solution components for 7 years from the bid start date. End of support date(s)has/have not been announced for the above proposed equipment/solution components.

Thanking you,

Yours faithfully,

(Signature of the Authorised Signatory from OEM)

Name:

Designation:

Place:
Date:

FORM –1.12: HMIS OEM'S DECLARATION

(This form has to be provided by HMIS OEM for the HMIS solutions proposed on its letter head. This letter of authority should be on the letterhead of the manufacturer and should be signed by a person competent and having the power of attorney to bind the OEM.)

Date: dd/mm/yyyy

To,
Chief Executive Officer,
Surat Smart City Development Limited (SSCDL)
1st Floor, South Zone Office, Surat Municipal Corporation,
Opp. Satyanagar, Udhna, Surat-394210, Gujarat, India.

Subject: OEM's Declaration Form for HMIS Solution

Ref: RFP No. SSCDL-e-Health-RFP-02-2022

Dear Sir,

I, <<name of authorized signatory>> is authorized to submit this declaration. We <<Name of the OEM>> who are the official producer / Original Equipment Manufacturer of <<product proposed>> hereby undertake and certify that

- we are having at least one development centre in India with minimum 25 developers involved in product development.
- our proposed product comes with the source code available to developers for customization in accordance with terms of standard product License Agreement.
- we would be providing our warranty maintenance or support services for proposed product in accordance with terms of standard product License agreement for next 7 years.
- End of support date has not been announced for the product proposed as on bid start date.

Thanking you,

Yours faithfully,

(Signature)

For and on behalf of: _____ (Name of the OEM)

Authorised Signatory

Name:

Designation:

Place:

Date:

FORM –1.12 (A): FORMAT FOR SPECIFYING MAKE & MODEL

(This form has to be provided by Bidder for the HMIS solutions proposed on its letter head.)

The bidder must clearly mention the hardware (IT) components proposed as part of the solution along with the OEM & Model and units for the same. Bidder is required to submit the, Bidder Compliances, OEM Compliances, MAF (Authorization Letter from OEMs – Form-1.11) and datasheets as per below tables.

Unpriced BoQ for Implementation of e-Health Solution at SMC, Surat.									
#	Description	Unit of Measurement	Qty	Warranty Period	Proposed Make	Proposed Model/Version	Bidder's compliance	OEM's Compliance	OEM's Authorization Letter (Form-1.11)
			A	B	C	D	E	F	G
TABLE -A - IT Infrastructure Components									
SITC of IT Hardware Components									
1.	Desktop All in One Computer - i3	Nos.	161						
2.	Desktop All in One Computer - i5	Nos.	103						
3.	LaserJet Black & White Printer	Nos.	114						
4.	Multi-Function Mono Printer	Nos.	60						
5.	Barcode Printer	Nos.	5						
6.	Barcode Reader	Nos.	20						
SITC of IT Network Components									
7.	Core Switch (48x10G)	Nos.	2						

Unpriced BoQ for Implementation of e-Health Solution at SMC, Surat.									
#	Description	Unit of Measurement	Qty	Warranty Period	Proposed Make	Proposed Model/Version	Bidder's compliance	OEM's Compliance	OEM's Authorization Letter (Form-1.11)
			A	B	C	D	E	F	G
8.	Core Switch (24x10G)	Nos.	3						
9.	40G QSFP+ LR4 Transceiver Module for Core Switch	Nos.	5						
10.	40G QSFP+ DAC (5 M Length) for Core Switch	Nos.	1						
11.	10G-BASE TX RJ-45 Transceiver Module	Nos.	5						
12.	10G SFP+ LR Transceiver Module for Core Switch	Nos.	150						
13.	48 ports (1G/10G) Web Managed Switch	Nos.	1						
14.	24 ports (1G/10G) Web Managed Switch	Nos.	16						
15.	24 ports (1G/10G) Web Managed PoE+ Switch	Nos.	53						

Unpriced BoQ for Implementation of e-Health Solution at SMC, Surat.									
#	Description	Unit of Measurement	Qty	Warranty Period	Proposed Make	Proposed Model/Version	Bidder's compliance	OEM's Compliance	OEM's Authorization Letter (Form-1.11)
			A	B	C	D	E	F	G
16.	10G-BASE LR, SFP+ Optic, SM Transceiver for Access Switch	Nos.	150						
17.	Indoor Wi-Fi Access Points (AP)	Nos.	124						
18.	Wireless LAN Controller for Indoor WI-FI Access Point	Nos.	1						
19.	Enterprise Next Generation Firewall	Nos.	1						
20.	Wi-Fi Router	Nos.	60						
21.	Faceplate- 1 Port	Nos.	500						
22.	Faceplate- 2 Port	Nos.	250						
23.	CAT 6A Shielded RJ45 Jack	Nos.	1000						
24.	CAT 6A Patch/Mounting Cord - 2 Metre	Nos.	500						

Unpriced BoQ for Implementation of e-Health Solution at SMC, Surat.									
#	Description	Unit of Measurement	Qty	Warranty Period	Proposed Make	Proposed Model/Version	Bidder's compliance	OEM's Compliance	OEM's Authorization Letter (Form-1.11)
			A	B	C	D	E	F	G
25.	CAT 6A Patch/Mounting Cord - 5 Metre	Nos.	250						
26.	CAT 6A Patch/Mounting Cord - 10 Metre	Nos.	250						
27.	CAT 6A Shielded RJ 45 Connector	Nos.	2000						
28.	Cat 6A Cable	Rmt	90000						
29.	PVC Batten Pipe	Rmt	40000						
30.	24 Port SM LC LIU Fibre Panel-Unloaded	Nos.	75						
31.	12 Port SM LC LIU Fibre Panel-Unloaded	Nos.	100						
32.	Fibre Patch Cord	Nos.	200						
33.	LC Pigtail Single Mode	Nos.	1500						
34.	6 Core OS2 FOC Cable	Rmt	10000						
35.	9U Rack	Nos.	59						
36.	15U Rack	Nos.	1						

Unpriced BoQ for Implementation of e-Health Solution at SMC, Surat.									
#	Description	Unit of Measurement	Qty	Warranty Period	Proposed Make	Proposed Model/Version	Bidder's compliance	OEM's Compliance	OEM's Authorization Letter (Form-1.11)
			A	B	C	D	E	F	G
37.	27U Rack	Nos.	3						
38.	42U Rack	Nos.	1						
39.	10 KVA UPS	Nos.	1						
SITC of PACS Hardware									
40.	Radiology Workstation with Monitor	Nos.	4						
41.	Robotic CD-DVD Writer	Nos.	1						
SITC of QMS Hardware									
42.	Token Dispenser	Nos.	4						
43.	55-inch Android LED TV	Nos.	12						
44.	40-inch Android LED TV	Nos.	50						
45.	Token Paper Roll	Nos.	50						
SITC of Server & Storage									
46.	Centralized HCI Server	Nos.	1						
Software Application									

Unpriced BoQ for Implementation of e-Health Solution at SMC, Surat.									
#	Description	Unit of Measurement	Qty	Warranty Period	Proposed Make	Proposed Model/Version	Bidder's compliance	OEM's Compliance	OEM's Authorization Letter (Form-1.11)
			A	B	C	D	E	F	G
47.	HMIS along with EMS module	Nos.	1						
48.	PACS	Nos.	1						
49.	QMS	Nos.	1						
50.	NMS	Nos.	1						
51.	Speech Recognition Software	Nos.	10						
SITC for any Additional Components Proposed as part of Solution									
1.									
2.									
…n									
SITC of Software Licenses for Virtualisation, Server OS, Database, Enterprise Security & Antivirus Software									
1									
2									

Unpriced BoQ for Implementation of e-Health Solution at SMC, Surat.										
#	Description	Unit of Measurement		Qty	Warranty Period		Proposed Make	Proposed Model/Version	Bidder's compliance	OEM's Compliance	OEM's Authorization Letter (Form-1.11)
				A	B		C	D	E	F	G
…n											

FORM –1.13: PROJECT EXECUTION METHODOLOGY

(Detailed Write up and presentation)

The technical proposal should explain the solution proposed by the Bidder and should highlight its salient features (if any). The Bidders will be required to provide a Solution Overview through brief Write-up & Presentation in written form not exceeding broadly 6000 words.

	Project Understanding and Approach
#	**Particulars**
1	**Understanding of the project requirements of SMC through followings**
	Overall understanding of SMC requirement explaining how the proposed solution would meet the SMC requirement clearly specifying split between standard vs. custom development.
	Solution & Proposed Architecture for including product and software selection criteria, integration mechanism and MIS.
2	**Project Management Plan, Work Plan including consortium partner role**
3	**USP of proposal in terms of followings**
	Implementation methodology, change management, Proposed automation, accelerators, training plan, testing innovations and tools
4	**Timelines**
5	**Project Risk Identification and Mitigation Strategies**
6	**Relevant Experience** highlighting e-Health project implementations in ULB/ Public Sector/ Government sector.

Supporting Documents for Technical and Project Management Evaluation Criteria should be submitted.

The write-up is required to ensure that a workable solution is proposed. SSCDL/SMC reserves the right to call the bidder for any clarifications/discussions regarding the solution and suggest binding changes in the solution if it feels such solution deviates majorly from its needs and purposes.

The requirements stated in section 3.3need to be evaluated whether they are fulfilled through standard out-of-the-box with configuration OR need customization.

<Name of the module>				
	Sr.No	**Functionalities**	**Availability**	
			STD - Supported as standard business process with/ without configuration	
			CUST - Supported via customization	
			STD	**CUST**
			Y=Yes	
<Sub Module>				
	1	<Functionality>		

FORM –1.14: PROPOSED SOLUTION ARCHITECTURE AND INFRASTRUCTURE

(Detailed Requirement and design)

Architecture diagram detailing the landscape proposed:

The solution as part of the RFP shall be hosted at the Data Centre of SMC, whereas bidder should provide the designing and sizing of the hardware required. The bidder is required to provide the details of the proposed solution architecture and infrastructure considering the RFP requirements.

Justification/ merits of the same highlighting:

- Reasoning for specified components over other options.
- Extent of compliance to technical requirements specified in the scope of work

The Strategy, Approach & Methodology for installation, Configuration & housekeeping of all the key components of the project

FORM –1.15: ROLES & RESPONSIBILITY BIFURCATION MATRIX

Scope	Responsibility to be undertaken by (Sole Bidder/ Primer Bidder/ Consortium Partner / Sub-contractor)	Company Name	Necessary Supporting Documents in support of PQ Criteria & RFP submitted? (Yes/No)
SITC & Maintenance of complete HMIS Solution			
SITC & Maintenance of complete PACS Solution			
SITC & Maintenance of complete QMS Solution			
SITC and Maintenance of IT Hardware & Network Infrastructure			
Deployment of onsite Manpower for Maintenance Support post Go-Live			

I confirm that the above proposed entities meets all the pre-qualification criteria mentioned in the RFP. The Information submitted above is true and I am aware that submitting false information will lead to rejection of our bid and SSCDL/HSCC reserves rights to take appropriate actions in this regard.

(Sign &stamped by authorized signatory of Sole/Prime Bidder)

Name & Designation:

10. CONTENT AND FORMAT OF PRICE BID

10.1 PRICE BID COVER LETTER

<<To be printed on letter head of Prime Bidder and signed by Authorized signatory of Prime bidder>>

Date: dd/mm/yyyy

To
Chief Executive Officer,
Surat Smart City Development Ltd.
1st Floor, South Zone Office, Surat Municipal Corporation,
Opp. Satyanagar, Udhna, Surat-394210, Gujarat, India.

Subject: RFP for Selection of System Integrator for the "Development of IT Infrastructure (HMIS, PACS, QMS, Network Infrastructure) for Surat Municipal Corporation (SMC) hospitals & Health Centres at Surat, Gujarat"

Ref: RFP No. SSCDL-eHealth-RFP-02-2022

Dear Sir/ Madam,

We, the undersigned Bidders, having read and examined in detail all the bidding documents in respect of above referred RFP, do hereby propose to provide services as specified in the Bid Document referred above**.**

1. PRICE AND VALIDITY
    1 All the prices mentioned in our Tender are in accordance with the terms as specified in the Tender documents. All the prices and other terms and conditions of this Tender are valid for entire contract duration.
    2 We hereby confirm that our Tender prices include all taxes. Taxes are quoted separately under relevant sections, as specified in the Bid Document formats.
    3 We have studied the clause relating to Indian Income Tax and hereby declare that if any income tax, surcharge on Income Tax, Professional and any other corporate Tax in altercated under the law, we shall pay the same.
2. DEVIATIONS

    We declare that all the services shall be performed strictly in accordance with the Bid Documents and there are no deviations irrespective of whatever has been stated to the contrary anywhere else in our bid.

    Further we agree that additional conditions, if any, found in our bid documents, shall not be given effect to.

3. QUALIFYING DATA

    We confirm having submitted the information as required by you in your Instruction to Bidders. In case you require any other further information/documentary proof in this regard before evaluation of our Tender, we agree to furnish the same in time to your satisfaction.

4. BID PRICE

We declare that our Bid Price is for the entire scope of the work as specified in the Bid Document. The bid price at which the contract is awarded shall hold good for entire tenure of the contract. These prices are indicated in the subsequent sub-sections of this Section.

5. CONTRACT PERFORMANCE GUARANTEE BOND

We hereby declare that in case the contract is awarded to us, we shall submit the contract Performance Bank Guarantee in the form prescribed in the Bid Document.

We fully understand and agree to the scope of work, our roles and responsibilities, obligations, risks involved and terms and conditions specified in RFP documents. I/We undertake to do design, development, integration, implementation, operation, maintenance, and management of the Development of IT Infrastructure (HMIS, PACS, QMS, Network Infrastructure) for Surat Municipal Corporation (SMC) hospitals & Health Centres at Surat, Gujarat on 'Design-Develop-Maintain-Transfer' basis as per the terms of the RFP.

We hereby declare that our Tender is made in good faith, without collusion or fraud and the information contained in the Tender is true and correct to the best of our knowledge and belief.

We understand that our Tender is binding on us and that you are not bound to accept a Tender you receive. We confirm that no Technical deviations are attached here with this commercial offer.

Thanking you,

Yours faithfully,

(Signature of the Authorized Signatory)

Name

Designation

Seal.

Date:

Place:

Business Address:

10.2 GENERAL INSTRUCTIONS

1. Bidder should provide all prices as per the prescribed format under this section in online form only.
2. Bidder should provide all prices as per the prescribed format under this Section.
3. All the prices are to be entered in Indian Rupees (INR) only.
4. The rates quoted online in Price bid shall be exclusive of GST but inclusive of any other directly or indirectly applicable taxes. GST as applicable shall be payable by the Authority to the Selected Bidder based on invoice raised and on submitting the evidence of payment of such Service Tax. Any deviations due to change in the rate of directly applicable taxes and duties except GST would be Liability of the Selected Bidder.
5. The SI needs to account for all Out of Pocket expenses due to Boarding, Lodging and other related items.
6. SSCDL shall be entitled to deduct tax at source or any other taxes/ cess as may be applicable
7. It is mandatory to provide breakup of all Taxes, Duties and Levies wherever asked for.
8. SSCDL reserves the right to ask the SI to submit proof of payment against any of the taxes, duties, levies indicated.
9. The Unit Rate as mentioned in the following formats may be used for the purpose of 'Change Order' for respective items, if any.
10. Quantities mentioned in the commercial formats are indicative in number. SSCDL may or may not procure the listed components in mentioned quantities. SSCDL has the rights to delete/ vary the quantities of any of the component before final implementation. Also, SSCDL reserves the right to remove any of the line components (as per BOQ provided).
11. The quantity specified in BOQ (Form 1.12(A)) & Price Bid should be same.
12. Solution designing will be responsibility of bidder. Any additional components not quoted in Commercial bid but necessary for the solution / performance of the project, Bidder is required to provide the same to the SSCDL without any additional cost.
13. No escalations of prices will be considered under any circumstances.
14. The successful bidder shall not object to the upward or downward variation in quantities of any item. SSCDL/SMC may or may not procured certain items as mentioned in Price Bid, if required.
15. The rates mentioned in the price bid for "Implementation of e-Health Solution at SMC Surat." will be valid during the entire contract period and for other items it will be valid for the period of 5 Years from the date of issuance of the LOI.
16. No claim shall be entertained or become payable for price variation of additional quantities
17. Bidder shall be bound to give same or more % of discount on the list price of the OEMs on the future purchases (additional purchases within the contract period) by SSCDL or. Bidder shall ensure that the future products supplied are of latest specifications as per the OEM roadmap.
18. For the purpose of evaluation of Commercial Bids, SSCDL shall make appropriate assumptions to arrive at a common Bid price for all the bidders. This however shall have no co-relation with the Contract value or actual payment to be made to the Bidder.
19. SSCDL also intends to utilize various rates obtained through this tender for requirements across various departments. Bidders are requested to factor this larger demand and give the best possible rate to SSCDL.
20. Line items mentioned in the Commercial Formats are for representation purpose and SI may propose alternate technology / solution (with proper justification). Bidders are required to suitably add line items / merge the cost components depending upon their proposed solution.
21. No escalations of prices will be considered under any circumstances.
22. Payment for additional quantities shall be made at tender rates. If SSCDL/SMC wants to procure additional quantities, the same shall be valid for 5 years for such purchases.

23. The bidders are required to carry out due diligence in proposing various systems and keep in mind the overall system requirements and provide justification for the quantities in the Technical Proposal.
24. SSCDL/SMC reserves the right to question the logic of pricing for all E-HEALTH and other Software, Hardware and AMC costs, and thus bidders are required to ensure that no unjustified higher (or lower) pricing is done for subsequent years.
25. SSCDL/SMC reserves the right to do market survey for bid prices offered and negotiate with the bidder if their prices are higher than the ones discovered at that point of time.

10.3 PRICE BID FORMAT

[**Note**: Price Bid is to be submitted online only. The Price Bid if submitted physically along with Technical Bid leading to revelation of prices before the due date of opening of the Price Bid will lead to disqualification.]

Implementation of e-Health Solution at SMC, Surat.							
#	**Description**	**Unit of Measurement**	**Qty**	**Unit Rate (w/o GST) in INR**	**Total w/o GST in INR**	**Applicable GST**	**Total with GST in INR**
			A	**B**	**C=A*B**	**G1%**	**D=C*(G1+100)%**
TABLE -A - IT Infrastructure Components							
SITC of IT Hardware Components							
1.	Desktop All in One Computer - i3	Nos.	161				
2.	Desktop All in One Computer - i5	Nos.	103				
3.	LaserJet Black & White Printer	Nos.	114				
4.	Multi-Function Mono Printer	Nos.	60				
5.	Barcode Printer	Nos.	5				
6.	Barcode Reader	Nos.	20				
SITC of IT Network Components							
7.	Core Switch (48x10G)	Nos.	2				
8.	Core Switch (24x10G)	Nos.	3				
9.	40G QSFP+ LR4 Transceiver Module for Core Switch	Nos.	5				
10.	40G QSFP+ DAC (5 M Length) for Core Switch	Nos.	1				
11.	10G-BASE TX RJ-45 Transceiver Module	Nos.	5				
12.	10G SFP+ LR Transceiver Module for Core Switch	Nos.	150				
13.	48 ports (1G/10G) Web Managed Switch	Nos.	1				

Implementation of e-Health Solution at SMC, Surat.							
#	Description	Unit of Measurement	Qty	Unit Rate (w/o GST) in INR	Total w/o GST in INR	Applicable GST	Total with GST in INR
			A	B	C=A*B	G1%	D=C*(G1+100)%
14.	24 ports (1G/10G) Web Managed Switch	Nos.	16				
15.	24 ports (1G/10G) Web Managed PoE+ Switch	Nos.	53				
16.	10G-BASE LR, SFP+ Optic, SM Transceiver for Access Switch	Nos.	150				
17.	Indoor Wi-Fi Access Points (AP)	Nos.	124				
18.	Wireless LAN Controller for Indoor WI-FI Access Point	Nos.	1				
19.	Enterprise Next Generation Firewall	Nos.	1				
20.	Wi-Fi Router	Nos.	60				
21.	Faceplate- 1 Port	Nos.	500				
22.	Faceplate- 2 Port	Nos.	250				
23.	CAT 6A Shielded RJ45 Jack	Nos.	1000				
24.	CAT 6A Patch/Mounting Cord - 2 Metre	Nos.	500				
25.	CAT 6A Patch/Mounting Cord - 5 Metre	Nos.	250				
26.	CAT 6A Patch/Mounting Cord - 10 Metre	Nos.	250				
27.	CAT 6A Shielded RJ 45 Connector	Nos.	2000				
28.	Cat 6A Cable	Rmt	90000				
29.	PVC Batten Pipe	Rmt	40000				
30.	24 Port SM LC LIU Fibre Panel-Unloaded	Nos.	75				

Implementation of e-Health Solution at SMC, Surat.							
#	Description	Unit of Measurement	Qty	Unit Rate (w/o GST) in INR	Total w/o GST in INR	Applicable GST	Total with GST in INR
			A	B	C=A*B	G1%	D=C*(G1+100)%
31.	12 Port SM LC LIU Fibre Panel-Unloaded	Nos.	100				
32.	Fibre Patch Cord	Nos.	200				
33.	LC Pigtail Single Mode	Nos.	1500				
34.	6 Core OS2 FOC Cable	Rmt	10000				
35.	9U Rack	Nos.	59				
36.	15U Rack	Nos.	1				
37.	27U Rack	Nos.	3				
38.	42U Rack	Nos.	1				
39.	10 KVA UPS	Nos.	1				
SITC of PACS Hardware							
40.	Radiology Workstation with Monitor	Nos.	4				
41.	Robotic CD-DVD Writer	Nos.	1				
SITC of QMS Hardware							
42.	Token Dispenser	Nos.	4				
43.	55-inch Android LED TV	Nos.	12				
44.	40-inch Android LED TV	Nos.	50				
45.	Token Paper Roll	Nos.	50				
SITC of Server & Storage							
46.	Centralized HCI Server	Nos.	1				
Sub-Total A (INR)- Without GST							
Sub-Total A (INR)- With GST							
TABLE -B - Software Application							
47.	HMIS along with EMS module	Nos.	1				
48.	PACS	Nos.	1				
49.	QMS	Nos.	1				

Implementation of e-Health Solution at SMC, Surat.							
#	Description	Unit of Measurement	Qty	Unit Rate (w/o GST) in INR	Total w/o GST in INR	Applicable GST	Total with GST in INR
			A	B	C=A*B	G1%	D=C*(G1+100)%
50.	NMS	Nos.	1				
51.	Speech Recognition Software	Nos.	10				
Sub-Total B (INR)- Without GST							
Sub-Total B (INR)- With GST							
TABLE -C - Technical Manpower							
Technical Manpower		**Unit of Measurement**	**Qty**	**Rate Per Year (w/o GST) in INR**	**Total w/o GST in INR**	**Applicable GST**	**Total with GST in INR**
52.	Project Manager	Nos.	1				
53.	Application Developer	Nos.	3				
54.	Hardware and Network Engineer	Nos.	2				
55.	Helpdesk Support	Nos.	1				
Sub-Total C (INR)- Without GST							
Sub-Total C (INR)- With GST							
TABLE -D – SITC for any Additional Components Proposed as part of Solution							
#	Description	Unit of Measurement	Qty	Rate Per Year (w/o GST) in INR	Total w/o GST in INR	Applicable GST	Total with GST in INR
1		number					
2		Number					
…		number					
Sub-Total D (INR)- Without GST							
Sub-Total D (INR)- With GST							

1. The bidder can provide SITC cost of any additional solution components that are required to meet RFP requirements.
2. It is mandatory to provide the details pertaining to OEM, Product Name, Version, Part Code and exact Quantity for all components along with detailed specification and datasheet.
3. The bidder is also required to provide the “Form-1.11: MAF – Format for Authorisation Letter from OEMs” and submit the datasheet of the proposed solution components.
4. The exact copy of the above table without prices must be submitted as per "Form-1.12 (A): FORMAT FOR SPECIFYING MAKE & MODEL".

Table-E: SITC of Software Licenses for Virtualisation, Server OS, Database, Enterprise Security & Antivirus Software (With 5 Years of ATS from the Date of Golive)																
#	Product Name	Make/OEM	Version/Model	Part Code	Unit of Measurement	Qty	Unit License Cost (w/o GST) in INR	Total w/o GST in INR	Applicable GST	Total With GST in INR	Yearly ATS Rate (w/o GST) in INR	Total ATS w/o GST in INR for 5 Years	Applicable GST on ATS (G2)%	Total ATS with GST in INR	Total Cost without GST	Total Cost with GST
	A	B	C	D	E	F	H	I=F*H	G1%	J=I*(G1+100)%	K	L=F*K*5	G2%	M =L*(100+G2)%	N=I+L	O=J+M
Software Licenses for Virtualisation, Server OS, Database, Enterprise Security & Antivirus Software																
1					Number											
2					Number											
…					Number											
Total (INR)- Without GST																
Total (INR)- With GST																

Note:

1. All software license components related to Software Licenses for Virtualisation, Server OS, Database, Enterprise Security & Antivirus Software, etc. required to meet the scope of RFP must be enlisted above.
2. The yearly ATS Charge for respective software component should be mentioned in Column-K: ATS Charge. In case, if ATS is not applicable for certain line item then "0" should be mentioned in Column-K.
3. It is mandatory to provide the details pertaining to OEM, Product Name, Version, Part Code and exact Quantity for all license components.
4. The exact copy of the above table without prices must be submitted as per "Form-1.12 (A): FORMAT FOR SPECIFYING MAKE & MODEL"

Summary of Price Bid	
Grand-Total A+B+C+D+E (INR)- Without GST	
Grand-Total A+B+C+D+E (INR)- With GST	

11. IT Infrastructure Requirements

11.1. GENERAL INSTRUCTIONS

The bidder will be responsible for the following:

1. The bidder shall design, size, purchase, install, configure, commission and maintain the hardware components and related software for the solution implementation as per the minimum requirements provided hereunder. These requirement needs to be addressed by the Bidder while recommending Hardware for the solution. Bidder would be responsible for the entire infrastructure including maintenance of the infrastructure and any structured cabling (LAN / SAN) requirements interconnecting the racks.
2. Bidders have to size and propose the hardware infrastructure required to host the applications as part of the Integrated Systems Solution duly meeting the SLA requirements. The Bidder would have to identify infrastructure requirement which will include server, storage, backup, operating system, database, network, security etc. The sizing needs to be done keeping in mind the SMC's requirement for performance, response time and scalability, latest state-of-the-art, virtualization& guaranteed uptime during its entire lifespan with uninterrupted services
3. The specifications mentioned for various IT / Non-IT components are minimum indicative requirements and should be treated for benchmarking purpose only. SIs are required to undertake their own requirement analysis and may propose higher specifications that are better suited to the requirements.
4. All the hardware and software supplied should be from the reputed Original Equipment Manufacturers (OEMs). SSCDL reserves the right to ask replacement of any hardware / software without any additional cost to SSCDL, if it is not conforming to all requirements specified in tender documents.
5. SSCDL/HSCC is not responsible for any assumptions or judgments made by the Bidder for arriving at any type of sizing or costing. SSCDL/HSCC at all times will benchmark the performance of the Bidder to the RFP Documents circulated to the Bidder and the expected service levels as mentioned in these documents. In the event of any deviations from the requirements of these documents, the Bidder must make good the same at no extra costs to SSCDL/HSCC within two weeks of detection of the deviation, in order to achieve the desired service levels as well as meeting the requirements of these documents. SSCDL/HSCC shall not be responsible for any assumptions made by the Bidder. Also, if bidder misses to factor the cost of any item required to deliver the solution successfully or under sizes the hardware, then the bidder has to provide that without any additional cost.
6. No components proposed by the bidder should be declared End of Support, End of Sale or End of Life by the OEM as of the date of RFP submission. Any components that become end of support during the contract period, should be replaced 30 days in advance by the bidder at no additional cost.
7. All the patches have to run successfully on Test & Development (T&D) environment before deployed Live for production. Bidder has to ensure that the patches provided are compatible with the customized solution running at SMC and will not have any adverse impact on the existing functionalities.
8. Bidder can leverage virtualization to arrive on the solution.
9. The Bidder shall be responsible for delivering the desired performance level and availability as described in RFP and suitably design, supply, install and commission

hardware, software and other components otherwise the bidder shall replace the required system without any additional cost.

10. The Bidder will be required to provide detailed documentation on:
    a. The hardware and related software to be supplied;
    b. The process to be followed in installation of the hardware and related software;
    c. The process to be followed in maintenance and upgrade of the hardware and related software;
11. The Bill of Materials as estimated by SMC is not exhaustive. Any additional items/ components like Hardware, Software, any licenses, accessories, service etc. as required to make the project completely operational may be assessed by the Bidder and the same may be incorporated in the offer. Even at the time of execution, if any additional items/ components like Hardware, Software, any licenses, accessories, service etc. are required to complete the system integration, notwithstanding the BOM as identified by the Bidder as above, the same shall be provided at no additional cost.
12. The bidder must clearly specify the features of the offered product vis-à-vis specification and deviation if any in the Table.
13. The technical spec sheet and the product brochure of the product offered should also be submitted along with technical bid.
14. In case the space provided is not sufficient then a separate paper as per the format below can be annexed to the bid. The same must be duly signed and stamped.
15. All the hardware and software supplied should be from the reputed Original Equipment Manufacturers (OEMs). SSCDL reserves the right to ask replacement of any hardware / software without any additional cost to SSCDL, if it is not conforming to all requirements specified in tender documents.
16. The software licenses provided should be perpetual and enterprise level such that SSCDL/SMC (or any entity as determined by SSCDL/SMC) can use the software products irrespective of number of users (under any user role), number of hospitals or health centres, number of health instruments/devices, number of cores/sockets/CPUs, integration interfaces, etc. without any additional cost.
17. None of the IT / Non-IT equipment's proposed by the SI should be End of Life product. It is essential that the technical proposal is accompanied by the OEM certificate in the format given in this Tender, where-in the OEM will certify that the product is not end of life product & shall support for stipulated time duration as per RFP from the date of Bid Submission.
18. Technical Bid should be accompanied by OEM's product brochure / datasheet. SIs should provide complete make, model, part numbers and sub-part numbers for all equipment/software quoted, in the Technical Bid.
19. SI shall ensure that only one make and model is proposed for one component in Technical Bid.
20. SIs should ensure complete warranty and support for all equipment from OEMs. All the back-to-back service agreements should be submitted along with the Technical Bid.
21. All equipment, parts should be original and new.
22. For custom made modules, industry standards and norms should be adhered to for coding during application development to make debugging and maintenance easier. Object oriented programming methodology must be followed to facilitate sharing, componentizing and multiple-use of standard code. Before hosting the application, if required the application security audit (by any of the CERTIN empanelled vendors) may be carried out to ensure that the application is free from any vulnerability.

23. The system software licenses (including COTS products) shall be genuine, perpetual, full use and should provide patches, fixes, security updates directly from the OEM at no additional cost to SSCDL for the entire period of contract.
24. SI shall ensure all the equipment installed in the public/outdoor locations are vandal proof and in case the equipment get damaged /stolen for reasons whatsoever, it shall repair/replace the same in the specified time as per SLAs at no extra cost to the SSCDL. All such costs shall be factored in the comprehensive insurance of field equipment for the duration of the contract.SI shall also get comprehensive insurance including damage of project components from the insurance Company for the contract duration (Including Implementation period) for all the equipment / components installed under this project. SI shall submit the insurance details along with the premium payment details regularly with SSCDL.
25. All the equipment, software and workmanship that form a part of the service are to be under warranty throughout the term of the service contract from the date of service acceptance and commencement. The warranty shall require the SI to be responsible to bear all cost of parts, Labor, field service, pick-up and delivery related to repairs, corrections during the Project Period or all such incidental expenses incurred during the warranty period.
26. SI will provide proper protection against Power Surges and Ensure Power stabilization to all the field level equipment.
27. SI will have to provide troubleshooting & FAQ's, Content Development Guide, Content Sharing Guide, Software Guide etc.
28. System Integrator shall place orders on various OEMs directly and not through any sub-contractor / partner. All licenses should be in the name of the SSCDL/SMC.

11.2. MINIMUM TECHNICAL SPECIFICATION

- The bidder can quote for each item meeting or exceeding the below mentioned minimum specification. Separate sheet needs to be attached if more than one product is quoted.
- The specifications mentioned below are minimum specification. The bidder can quote the products equivalent or higher depending upon the sizing for the entire solution.
- The bidder must clearly specify the features of the offered product vis-à-vis specification and deviation if any in the Column-C and Column-D respectively.
- The technical spec sheet and the product brochure of the product offered should also be submitted along with technical bid.

11.2.1 *Desktop All in One Computer (i3 Based)*

Required Make: HP/DELL/LENOVO

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification / Remarks if Any
A	**B**	**C**	**D**	**E**
1.	Processor	Intel® 10th generation Core™ i3-10105 Processor (3.70 GHz Base Frequency/Clock Speed, 6MB Cache, 4 core) or higher		
2.	Memory	8 GB DDR4 RAM @ 2666 MHz or higher with 1 DIMM slot free. (Single Module Should be supplied)		
3.	Hard Disk Drive	500 GB NVMe PCIe M.2 SSD or higher (should have provision to properly mount additional SATA HDD)		
4.	Optical Drive	Internal DVD Writer		
5.	NIC	**Wired Communication:** Integrated Gigabit Ethernet **Wireless Communication:** Integrated Wireless LAN 802.11 ac and Bluetooth 4.0 or higher		
6.	Screen Size	21.5” or higher wide screen LED Backlit based TFTs, should have any 2 nos. of distinct ports out of VGA / HDMI / Display port, Resolution – 1920 x 1080 or better, TCO Displays 7.0 and Energy Star 6.0 certified or better; Monitor should be of same make of offered PC Brand. [Specify the part no.]		
7.	Keyboard	Standard Full Size 104 key USB Keyboard (should be regular in		

		size and not be slim type) (Same Make of PC) [Specify the part no.]		
8.	Mouse	Two button scroll USB optical mouse (Same Make of PC) with pad		
9.	Interfaces/Port	- Minimum 7 USB Ports (min. 3 USB ports in front and 4 USB ports in back) of which • Min. 2 USB 3.2/3.1 ports (front) • Min. 2 USB 3.2/3.1 ports (back) - Minimum 1 no. of HDMI port - Minimum 1 no. of VGA / Display Port - Audio – Line In, Line Out, Microphone		
10.	PCI Slots	Minimum 2 PCIe slots (minimum 1*PCIeX1 and 1*PCIeX16 slot)		
11.	Operating System	Factory Pre-loaded/Pre-installed and activated licensed Window 10 Professional 64 bit upgradable to windows 11 professional 64 bit version or Windows 11 professional 64 bit version with latest updates with online / cloud based Restore/ Recovery No software that are trial version or unlicensed in nature should be pre-installed on the system.		
12.	Warranty	5 years comprehensive onsite back-to-back OEM warranty for Desktop, Monitor, Keyboard and mouse including service and parts. Warranty details should be verifiable on OEM's official website by entering device serial number.		
13.	Form Factor	Tower Model (no SFF or micro or ultra)		
14.	Specify the proposed make			
15.	Specify the proposed model			

11.2.2 Desktop All in One Computer (i5 Based)

Required Make: HP/DELL/LENOVO

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from

				Specification/ Remarks if Any
A	**B**	**C**	**D**	**E**
1.	Processor	Intel® 10th generation Core™ i5-10505 Processor (2.60 GHz Base Frequency/Clock Speed, 12MB Cache, 6 core) or higher		
2.	Memory	16 GB DDR4 RAM @ 2666 MHz or higher with 1 DIMM slot free. (Single Module Should be supplied)		
3.	Hard Disk Drive	1 TB 7200 rpm SATA II hard disk or higher		
4.	Optical Drive	Internal DVD Writer		
5.	NIC	**Wired Communication:** Integrated Gigabit Ethernet **Wireless Communication:** Integrated Wireless LAN 802.11 ac and Bluetooth 4.0 or higher		
6.	Screen Size	21.5" or higher wide screen LED Backlit based TFTs, should have any 2 nos. of distinct ports out of VGA / HDMI / Display port, Resolution – 1920 x 1080 or better, TCO Displays 7.0 and Energy Star 6.0 certified or better; Monitor should be of same make of offered PC Brand. [Specify the part no.]		
7.	Keyboard	Standard Full Size 104 key USB Keyboard (should be regular in size and not be slim type) (Same Make of PC [Specify the part no.]		
8.	Mouse	Two button scroll USB optical mouse (Same Make of PC) with pad		
9.	Interfaces/Port	- Minimum 7 USB Ports (min. 3 USB ports in front and 4 USB ports in back) of which • Min. 2 USB 3.2/3.1 ports (front) • Min. 2 USB 3.2/3.1 ports (back) - Minimum 1 no. of HDMI port - Minimum 1 no. of VGA / Display Port - Audio – Line In, Line Out, Microphone		

10.	PCI Slots	Minimum 2 PCIe slots (minimum 1*PCIeX1 and 1*PCIeX16 slot)		
11.	Operating System	Factory Pre-loaded/Pre-installed and activated licensed - Window 10 Professional 64 bit upgradable to windows 11 professional 64 bit version or - Windows 11 professional 64 bit version with latest updates with online / cloud based Restore/ Recovery. No software that are trial version or unlicensed in nature should be pre-installed on the system.		
12.	Warranty	5 years comprehensive onsite back-to-back OEM warranty for Desktop, Monitor, Keyboard and mouse including service and parts. Warranty details should be verifiable on OEM's official website by entering device serial number.		
13.	Specify the proposed make			
14.	Specify the proposed model			

11.2.3 Laser Jet Black and White Printer

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	**B**	**C**	**D**	**E**
1.	Cartridge Technology	Composite Cartridge		
2.	Print Technology	Laser		
3.	Type of Printing	Mono		
4.	Paper Size (Original/Image)	A4 / Legal		
5.	Memory (MB)	64 or Higher		
6.	Minimum Speed per Minute as per ISO/IEC 24734 in A4 Size-Mono	29 or Higher		

7.	Scanning Feature Availability	No		
8.	Duplexing Feature Availability	Yes		
9.	Networking Feature Availability	Yes		
10.	Wi-Fi Availability	Yes		
11.	If yes, Wi-Fi Type	Wi-Fi 802.11 b/g/n		
12.	Number of Main Paper Tray	1		
13.	Warranty	5 years comprehensive onsite back-to-back OEM warranty including service and parts. Warranty details should be verifiable on OEM's official website by entering device serial number.		
14.	Specify proposed make			
15.	Specify proposed model			

11.2.4 *Multi-Function Mono Printer*

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	**B**	**C**	**D**	**E**
1.	Type of Machine	Multifunction Machine		
2.	Print Technology	Laser		
3.	Type of Printing	Mono		
4.	Cartridge Technology	Composite Cartridge		
5.	Platen/Flatbed Size	A4		
6.	Paper Size (Original/Image)	A4/Legal		
7.	RAM size (MB)	64 or Higher		
8.	Minimum Speed per Minute as per ISO/IEC 24734 in A4 Size-Mono	29 or Higher		
9.	Scanning Feature Availability	Yes		
10.	Duplexing Feature Availability	Yes		
11.	Networking Feature Availability	Yes		
12.	Wi-Fi Availability	Yes		

13.	If yes, Wi-Fi Type	Wi fi 802.11 b/g/n & Wi-Fi Direct		
14.	Number of Main Paper Tray	1		
15.	Bypass Facility	Yes		
16.	Warranty	5 years comprehensive onsite back-to-back OEM warranty including service and parts. Warranty details should be verifiable on OEM's official website by entering device serial number.		
17.	Specify proposed make			
18.	Specify proposed model			

11.2.5 *Barcode Printer*

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	**B**	**C**	**D**	**E**
1.	Type	Desktop		
2.	Printing Technology	Thermal Transfer		
3.	Resolution (dpi)	200 or Higher		
4.	Print Speed (mm/sec.)	56 or Higher		
5.	Maximum Print Width (mm)	60		
6.	Maximum Print length (mm)	224		
7.	Media Type	black and white		
8.	Media Form	Roll		
9.	Media Width (mm)	22		
10.	Media Length (mm)	33		
11.	Media Thickness (mm)	75		
12.	Maximum Media Roll Diameter(mm)	274		
13.	Media Core Diameter (mm)	241		
14.	Ribbon Length (mm)	231		
15.	Ribbon Width (mm)	215		
16.	Ribbon Capacity	274		
17.	Processor (bits)	301		
18.	RAM Size (MB)	245		
19.	Compatible Barcode Symbologies	(Linear, PDF-417, Maxicodes, etc)		
20.	USB 2.0	Available		

21.	USB 3.0	Available		
22.	Serial Port	Available		
23.	Parallel Port	Available		
24.	Wi-Fi Availability	Yes		
25.	If yes, Wi-Fi Type	Wi fi 802.11 b/g/n		
26.	BIS Registration under CRS of Meity	Yes		
27.	On Site OEM Warranty (Year)	5 years comprehensive onsite back-to-back OEM warranty including service and parts.		
28.	Specify proposed make			
29.	Specify proposed model			

11.2.6 *Barcode Reader*

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	**B**	**C**	**D**	**E**
1.	Form Factor	Hand Held		
2.	Scan System	Laser		
3.	Scan Rate (Scans per second/frames per second)	270		
4.	Communication Interface	USB		
5.	Print Contrast Ratio (%)	35		
6.	Resolution (mil)	5		
7.	Bar Code Density (mil)	5		
8.	Minimum Depth of Field (mm)	35		
9.	Maximum Depth of field (mm)	300		
10.	Ambient Light Immunity (Lux)	100000		
11.	Compatible Bar code Symbologies: (UPC-A/UPC-E, EAN 13, JAN-13, CODABAR, ADD-ON-2, code-93, Industrial Codes, Interleaved 2 or 5, EAN 128 etc)	Yes		
12.	Compatible Bar code Symbologies : (Micro PDF, PDf- 417, Data Matrix, QR Code/UCC,	Yes		

	EAN Composites, Aztec etc)			
13.	BIS Registration under CRS of Meity	Yes		
14.	On Site OEM Warranty	5 years comprehensive onsite back-to-back OEM warranty including service and parts.		
15.	Specify proposed make			
16.	Specify proposed model			

Technical Specification for Active devices and Passive Devices (LAN & Wi-Fi)

General Criteria

#	General Requirement
1.	Switches: All Switches (Core, Distribution and Access) and Transceivers should be of same OEM.
2.	All Active components and passive components and Operations and maintenance services should be quoted with minimum 5 years warranty including 24X7 Technical Assistance support.
3.	NMS should be provided to manage all the switches and Wi-Fi APs.
4.	All Core switches must have dual redundant hot-swappable power supply.
5.	All switches should have in built support for 802.3az/Energy Efficient Ethernet/Green Ethernet.
6.	All Switches should be configured to provide Wire-Speed Non-Blocking Switching.
7.	OEM must have direct support center in India and must have direct support Infrastructure.
8.	OEM shall have ISO 9001 certification

11.2.7 *48 Port 10 G/40G Core Switch*

Required Make: CISCO/ HPE/Juniper/Extreme Networks

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	**B**	**C**	**D**	**E**
1.	High Availability	· Core Switch should be configurable in a High Availability (Active-Active) mode with support for dual homing		
2.	Switching Capacity	· Switching Capacity of minimum 1280 Gbps or Higher		

3.	Ports	· Should have minimum 48 X 10G BASE-SFP+ SR/LR ports.		
		· Should have minimum 4 X 40G BASE-QSFP+ LR4/SR4 ports		
4.	Switch type	· Fully Managed & Advanced Layer 3 Core/Data Centre Switch & Non-Chassis Based/ Modular with slots		
5.	Backplane	· Properly sized Switching fabric capacity (as per network configuration to meet performance requirements of wire speed switching for the connected devices)		
6.	Layer-2 Features	· Switch should Support IEEE 802.1Q VLAN encapsulation & must have feature to configure minimum 4000 VLAN IDs.		
		· The switch must support dynamic VLAN Registration or equivalent and Dynamic Trunking protocol or equivalent (Optional)		
		· Switch should Support Ether Channeling - IEEE 802.3ad or port aggregation technologies (support of LACP)		
		· Switch should Support IEEE 802.3x flow control for full-duplex mode ports.		
		· Switch should Support IEEE 802.1s/w Rapid Spanning Tree Protocol (RSTP) and Multiple Spanning Tree Protocol (MSTP)		
		· Support for Automatic Negotiation of Trunking Protocol, to help minimize the configuration & errors.		
		· IGMP snooping v1, v2 and v3		
		· Should support 30K or more ARP/MAC Address table		
		· Should support Loop protection and Loop detection.		
7.	Layer-3 Features	· Must have Static, OSPFv3, BGP4, RIPv1, RIPv2 and Policy based routing protocols with IPV4 & IPv6 supported.		
		· Unicast & Multicast Routing		
		· Should support Dual IP stack which Maintains separate stacks for IPv4 and IPv6		
		· Should support Virtual Router Redundancy Protocol (VRRP).		

		· Should support Equal-Cost Multipath (ECMP) which provides equal-cost links in a routing environment to increase link redundancy.		
		· Support 802.1D, 802.1S, 802.1w, Rate limiting.		
		· Inter-VLAN IP routing for full Layer 3 routing between 2 or more VLANs.		
		· Inbuilt Feature of Dynamic Host Configuration Protocol (DHCP) Sever which simplifies the management of large IP networks and supports client and server system.		
		· L2/L3 VXLAN and EVPN support for virtualized environments		
8.	Network Security & QoS	· Standard 802.1p CoS and DSCP.		
		· Must have Network traffic filtering and network control using MAC and IP Binding based ACLs		
		· Support for Asynchronous/Synchronous data flows upstream and downstream from the end station or on the uplink using ingress policing and egress shaping or its equivalent function.		
		· Should support TACACS+ and RADIUS authentication		
		· Broadcast storm control to help eliminate network traffic storms		
		· IEEE 802.1x to allow dynamic, port-based security, providing user authentication (Optional)		
		· VLAN ACLs (VACLs) on all VLANs to prevent unauthorized data flows from being bridged within VLANs. Port-based ACLs (PACLs) for Layer 2 interfaces to allow application of security policies on individual switch ports		
		· Standard/Extended IP security router ACLs to define security policies on routed interfaces for control- and data-plane traffic.		
		· Unicast MAC filtering to prevent the forwarding of any type of packet with a matching MAC address.		

		· Unknown unicast and multicast port blocking to allow tight control by filtering packets that the switch has not already learned how to forward.		
		· Support for SSHv2 and SNMPv3 to provide network security by encrypting administrator traffic during Telnet/SSH and SNMP sessions.		
		· Private VLAN or equivalent to provide security and isolation between switch ports, helping ensure that users cannot snoop on other users' traffic.		
		· MAC address management to allow administrators for analysis of users added to or removed from the network.		
		· Multilevel security on console access to prevent unauthorized users from altering the switch configuration.		
		· IPv6 Host, Management, multicast and QoS.		
9.	Management	· Easy-to-use, Web-based management interface through either external GUI based software utility from the same switching OEM (Necessary software to be provided along with valid licenses & Subscriptions) or using in built standard HTTP/HTTPS web browser interface which Supports configuration, system dashboard, system maintenance, and monitoring and for easier software/firmware upgrade through network.		
		· Should have accessibility using Telnet/SSH, Console access.		
		· Intuitive web interface to upload/download Configurations to and from the switch.		
		· Provision of Dual flash/Dual Partition images to provide independent primary and secondary operating system files for backup while upgrading.		
		· Availability of Port statistics through industry-standard RMON		
		· SNMPv1/SNMPv2 and SNMPv3.		

10.	Warranty:	· 5 years comprehensive onsite back-to-back OEM warranty including service and parts. Warranty and support pack with necessary part/product code must be clearly mentioned from the OEM accompanied with datasheet		
11.	Chassis:	· Device must have 1+1 redundant AC power input supply and must be included with switch from day 1 with necessary mounting kit.		
12.	Specify the proposed Make			
13.	Specify the proposed Model No			

11.2.8 24 Port 10G/40G Core Switch

Required Make: CISCO/ HPE/ Juniper/Extreme Networks

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	**B**	**C**	**D**	**E**
1.	High Availability	· Core Switch should be configurable in a High Availability (Active-Active) mode with support for dual homing		
2.	Switching Capacity	· Switching Capacity of minimum 640 Gbps or Higher		
3.	Ports	· Should have minimum 24 X 10G BASE-SFP+ SR/LR ports. · Should have minimum 2 X 40G BASE-QSFP+ LR4/SR4 ports		
4.	Switch type	· Fully Managed & Advanced Layer 3 Core/Data Centre Switch & Non-Chassis Based/Modular with slots.		
5.	Backplane	· Properly sized Switching fabric capacity (as per network configuration to meet performance requirements of wire speed switching for the connected devices)		
6.	Layer-2 Features	· Switch should Support IEEE 802.1Q VLAN encapsulation & must have feature to configure minimum 4000 VLAN IDs.		

		· The switch must support dynamic VLAN Registration or equivalent and Dynamic Trunking protocol or equivalent (Optional)		
		· Switch should Support Ether Channelling - IEEE 802.3ad or port aggregation technologies (support of LACP)		
		· Switch should Support IEEE 802.3x flow control for full-duplex mode ports.		
		· Switch should Support IEEE 802.1s/w Rapid Spanning Tree Protocol (RSTP) and Multiple Spanning Tree Protocol (MSTP)		
		· Support for Automatic Negotiation of Trunking Protocol, to help minimize the configuration & errors.		
		· IGMP snooping v1, v2 and v3		
		· Should support 30k or more ARP/MAC Address table		
		· Should support Loop protection and Loop detection.		
7.	Layer-3 Features	· Must have Static, OSPFv3, BGP4, RIPv1, RIPv2 and Policy based routing protocols with IPV4 & IPv6 supported.		
		· Unicast & Multicast Routing		
		· Should support Dual IP stack which Maintains separate stacks for IPv4 and IPv6		
		· Should support Virtual Router Redundancy Protocol (VRRP).		
		· Should support Equal-Cost Multipath (ECMP) which provides equal-cost links in a routing environment to increase link redundancy.		
		· Support 802.1D, 802.1S, 802.1w, Rate limiting.		
		· Inter-VLAN IP routing for full Layer 3 routing between 2 or more VLANs.		

		· Inbuilt Feature of Dynamic Host Configuration Protocol (DHCP) Sever which simplifies the management of large IP networks and supports client and server system.		
		· L2/L3 VXLAN and EVPN support for virtualized environments		
8.	Network Security & QoS	· Standard 802.1p CoS and DSCP.		
		· Must have Network traffic filtering and network control using MAC and IP Binding based ACLs		
		· Support for Asynchronous/Synchronous data flows upstream and downstream from the end station or on the uplink using ingress policing and egress shaping or its equivalent function.		
		· Should support TACACS+ and RADIUS authentication		
		· Broadcast storm control to help eliminate network traffic storms		
		· IEEE 802.1x to allow dynamic, port-based security, providing user authentication (Optional)		
		· VLAN ACLs (VACLs) on all VLANs to prevent unauthorized data flows from being bridged within VLANs. Port-based ACLs (PACLs) for Layer 2 interfaces to allow application of security policies on individual switch ports		
		· Standard/Extended IP security router ACLs to define security policies on routed interfaces for control- and data-plane traffic.		
		· Unicast MAC filtering to prevent the forwarding of any type of packet with a matching MAC address.		
		· Unknown unicast and multicast port blocking to allow tight control by filtering packets that the switch has not already learned how to forward.		

		· Support for SSHv2 and SNMPv3 to provide network security by encrypting administrator traffic during Telnet/SSH and SNMP sessions.		
		· Private VLAN or equivalent to provide security and isolation between switch ports, helping ensure that users cannot snoop on other users' traffic.		
		· MAC address management to allow administrators for analysis of users added to or removed from the network.		
		· Multilevel security on console access to prevent unauthorized users from altering the switch configuration.		
		· IPv6 Host, Management, multicast and QoS.		
9.	Management	· Easy-to-use, Web-based management interface through either external GUI based software utility from the same switching OEM (Necessary software to be provided along with valid licenses & Subscriptions) or using in built standard HTTP/HTTPS web browser interface which Supports configuration, system dashboard, system maintenance, and monitoring and for easier software/firmware upgrade through network.		
		· Should have accessibility using Telnet/SSH, Console access.		
		· Inbuilt Intuitive web interface or through external management software from same switching OEM (Necessary software to be provided along with valid licenses & Subscriptions) to upload/download Configurations to and from the switch.		
		· Provision of Dual flash/Dual Partition images to provide independent primary and secondary operating system files for backup while upgrading.		
		· Availability of Port statistics through industry-standard RMON		
		· SNMPv1/SNMPv2 and SNMPv3.		

10.	Warranty:	· 5 years comprehensive onsite back-to-back OEM warranty including service and parts. · Specify the warranty and support pack with necessary part/product code.		
11.	Chassis:	· Device must have 1+1 redundant AC power input supply and must be included with switch from day 1 with necessary mounting kit.		
12.	Specify the proposed Make			
13.	Specify the proposed Model No			

11.2.9 40G QSFP+ LR4 Transceiver Module for Core Switch

(Must be compatible and from the same OEM as proposed for the Core Switch for Item No. 11.2.7 & Item No. 11.2.8)

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	**B**	**C**	**D**	**E**
1.	Ports	40G QSFP+ BASE- LR4 port		
2.	Warranty	• 5 years comprehensive onsite back-to-back OEM warranty including service and parts. • Specify the warranty and support pack with necessary part/product code.		
3.	Specify the proposed Make			
4.	Specify the proposed Model No			

11.2.10 40G QSFP+ DAC (5M Length) for Core Switch

(Must be compatible and from the same OEM as proposed for the Core Switch for Item No. 10.2.7 & Item No. 10.2.8)

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	**B**	**C**	**D**	**E**
1.	Ports	(Minimum 5M Length) 40G DAC for 40G QSFP+ Slots of Core Switch offered		
2.	Warranty	• 5 years comprehensive onsite back-to-back OEM warranty including service and parts.		

		• Specify the warranty and support pack with necessary part/product code.		
3.	Specify the proposed Make			
4.	Specify the proposed Model No			

11.2.11 10G-BASE TX RJ-45 Connector

(Must be compatible and from the same OEM as proposed for the Core Switch for Item No. 11.2.7 & Item No. 11.2.8)

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	**B**	**C**	**D**	**E**
1.	Type of Transceiver	SFP-BaseT 10G		
2.	Supported Protocol	10GBASE-T		
3.	Warranty	• 5 years comprehensive onsite back-to-back OEM warranty including service and parts. • Specify the warranty and support pack with necessary part/product code.		
4.	Specify the proposed Make			
5.	Specify the proposed Model No			

11.2.12 10G SFP+ LR Transceiver Module for Core Switch

(Must be compatible and from the same OEM as proposed for the Core Switch for Item No. 11.2.7 & Item No. 11.2.8)

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	**B**	**C**	**D**	**E**
1.	Ports	10G BASE-LR port; Duplex: full only		
2.	Wavelength	SM-1310 nm		
3.	Warranty	• 5 years comprehensive onsite back-to-back OEM warranty including service and parts. • Specify the warranty and support pack with necessary part/product code.		
4.	Specify the proposed Make			
5.	Specify the proposed Model No			

11.2.13 48 ports (1G/10G) L3 Lite Web Managed Switch

Required Make: CISCO/ HPE/ Juniper/Extreme Networks

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	**B**	**C**	**D**	**E**
1.	Ports	The switch shall have minimum 48 x RJ-45 auto-sensing/negotiating 1G ports		
2.		Either Minimum 2 x 10G SFP+ ports and 2 x 10G BASE-T RJ-45 ports Or Minimum 4 x 10G SFP+ ports with 2 x 10G BASE-T RJ-45 SFP+ Transceivers Modules Supplied with Product from Day one in addition to above fixed 48 ports.		
3.		Minimum 176 Gbps Switching Capacity		
4.		Should support 2k active VLANs and 15K MAC addresses.		
5.		Auto-negotiation for speed, duplex mode and flow control.		
6.		Auto-MDI/MDIX.		
7.		IEEE 802.3X flow control.		
8.		Integrated LEDs for improved visual monitoring and analysis.		
9.	Switch Management	Must have IEEE 802.1Q Static & Trunk VLAN (4000 VLAN IDs) & Port-based VLAN.		
10.		Spanning Tree Protocol (STP) to support standard IEEE 802.1D STP, IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) for faster convergence, and IEEE 802.1s Multiple Spanning Tree Protocol (MSTP).		
11.		IEEE 802.3ad Link Aggregation Control Protocol (LACP).		
12.		IPv6 Host, Management, multicast and QoS.		
13.		SNMPv1/SNMP v2c, and v3.		
14.		Built-in switch Web-based GUI configuration utility for easy browser-based device configuration (HTTP/HTTPS) which Supports configuration, system dashboard, system maintenance, and monitoring.		
15.		Should support Integrated Standard based Command Line Interface (CLI), Telnet/SSH, TFTP and secure communications to the management		

		interface and system through SSL, Secure Shell (SSHv2) And If Switch is not having Telnet/SSH feature than OEM is required to provide Bulk Switch Management Software for switches offered along with requisite perpetual licenses for all switches purchased under this contract for bulk Switch Configuration back-up & bulk firmware update feature without an additional cost to SSCDL/SMC.		
16.		IPv6 Host, Management, multicast and QoS		
17.		Layer 3 IPv4 and IPv6 static Routing.		
18.		Provision of Dual flash images to provide independent primary and secondary operating system files for backup while upgrading.		
19.		Intuitive web interface to upload/download the Switch software to the switch.		
20.		Intuitive web interface to upload/download Configurations to and from the switch.		
21.		Availability of Port statistics through industry-standard RMON		
22.		Jumbo frame support for packets.		
23.		Broadcast storm control to help eliminate network traffic storms.		
24.		Must have Network traffic filtering and network control using MAC and IP-Binding based Access Control.		
25.	Warranty	• 5 years comprehensive onsite back-to-back OEM warranty including service and parts. • Specify the warranty and support pack with necessary part/product code.		
26.	Chassis	1U, rack-mounting kit must be included		
27.	Power	Power supply AC 230 V (50/60 Hz)		
28.	Specify the proposed Make			
29.	Specify the proposed Model No			

11.2.14 24 ports (1G/10G) L3 Lite Web Managed Switch

Required Make: CISCO/ HPE/ Juniper/Extreme Networks

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification

				/ Remarks if Any
A	**B**	**C**	**D**	**E**
1.	Ports	The switch shall have minimum 24 x RJ-45 auto-sensing/negotiating 1G ports		
2.		Either Minimum 2 x 10G SFP+ ports and 2 x 10G BASE-T RJ-45 ports Or Minimum 4 x 10G SFP+ ports with 2 x 10G BASE-T RJ-45 SFP+ Transceivers Modules Supplied with Product from Day one in addition to above fixed 24 ports.		
3.		Minimum 128 Gbps Switching Capacity		
4.		Should support 2K active VLANs and 15K MAC addresses.		
5.		Auto-negotiation for speed, duplex mode and flow control.		
6.		Auto-MDI/MDIX.		
7.		IEEE 802.3X flow control.		
8.		Integrated LEDs for improved visual monitoring and analysis.		
9.	Switch Management	Must have IEEE 802.1Q Static & Trunk VLAN (4000 VLAN IDs) & Port-based VLAN.		
10.		Spanning Tree Protocol (STP) to support standard IEEE 802.1D STP, IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) for faster convergence, and IEEE 802.1s Multiple Spanning Tree Protocol (MSTP).		
11.		IEEE 802.3ad Link Aggregation Control Protocol (LACP).		
12.		IPv6 Host, Management, multicast and QoS.		
13.		SNMPv1/SNMP v2c, and v3.		
14.		Built-in switch Web-based GUI configuration utility for easy browser-based device configuration (HTTP/HTTPS) which Supports configuration, system dashboard, system maintenance, and monitoring.		
15.		Should support Integrated Standard based Command Line Interface (CLI), Telnet/SSH, TFTP and secure communications to the management		

		interface and system through SSL, Secure Shell (SSHv2) And If Switch is not having Telnet/SSH feature than OEM is required to provide Bulk Switch Management Software for switches offered along with requisite perpetual licenses for all switches purchased under this contract for bulk Switch Configuration back-up & bulk firmware update feature without an additional cost to SSCDL/SMC.		
16.		IPv6 Host, Management, multicast and QoS		
17.		Layer 3 IPv4 and IPv6 static Routing.		
18.		Provision of Dual flash images to provide independent primary and secondary operating system files for backup while upgrading.		
19.		Intuitive web interface to upload/download the Switch software to the switch.		
20.		Intuitive web interface to upload/download Configurations to and from the switch.		
21.		Availability of Port statistics through industry-standard RMON		
22.		Jumbo frame support for packets.		
23.		Broadcast storm control to help eliminate network traffic storms.		
24.		Must have Network traffic filtering and network control using MAC and IP-Binding based Access Control.		
25.	Warranty	• 5 years comprehensive onsite back-to-back OEM warranty including service and parts. • Specify the warranty and support pack with necessary part/product code.		
26.	Chassis	1U, rack-mounting kit must be included		
27.	Power	Power supply AC 230 V (50/60 Hz)		
28.	Specify the proposed Make			
29.	Specify the proposed Model No			

11.2.15 24 ports (1G/10G) L3 Lite Web Managed POE+ Switch

Required Make: CISCO/ HPE/ Juniper/Extreme Networks

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	B	C	D	E
1.	Ports	The switch shall have minimum 24 x RJ-45 auto-sensing/negotiating POE+ (802.3 at) 1G ports		
2.		Either Minimum 2 x 10G SFP+ ports and 2 x 10G BASE-T RJ-45 ports Or Minimum 4 x 10G SFP+ ports with 2 x 10G BASE-T RJ-45 SFP+ Transceivers Modules Supplied with Product from Day one in addition to above fixed 24 ports.		
3.		Access Switch should have Power Budget of minimum 370 Watts shared across all Ports.		
4.		Should support 2k active VLANs and 15K MAC addresses.		
5.		Auto-negotiation for speed, duplex mode and flow control		
6.		Auto-MDI/MDIX.		
7.		IEEE 802.3X flow control.		
8.		Integrated LEDs for improved visual monitoring and analysis.		
9.	Switch Management	Must have IEEE 802.1Q Static & Trunk VLAN (2000 VLAN IDs) & Port-based VLAN.		
10.		Spanning Tree Protocol (STP) to support standard IEEE 802.1D STP, IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) for faster convergence, and IEEE 802.1s Multiple Spanning Tree Protocol (MSTP).		
11.		IEEE 802.3ad Link Aggregation Control Protocol (LACP).		
12.		IPv6 Host, Management, multicast and QoS.		
13.		SNMPv1/SNMP v2c, and v3.		
14.		Built-in switch Web-based GUI configuration utility for easy browser-based device configuration (HTTP/HTTPS) which Supports configuration, system dashboard, system maintenance, and monitoring.		
15.		Should support Integrated Standard based Command Line Interface (CLI), Telnet/SSH, TFTP and secure		

		communications to the management interface and system through SSL, Secure Shell (SSHv2) And If Switch is not having Telnet/SSH feature than OEM is required to provide Bulk Switch Management Software for switches offered along with requisite perpetual licenses for all switches purchased under this contract for bulk Switch Configuration back-up & bulk firmware update feature without an additional cost to SSCDL/SMC.		
16.		IPv6 Host, Management, multicast and QoS		
17.		Layer 3 IPv4 and IPv6 static Routing.		
18.		Provision of Dual flash images to provide independent primary and secondary operating system files for backup while upgrading.		
19.		Intuitive web interface to upload/download the Switch software to the switch.		
20.		Intuitive web interface to upload/download Configurations to and from the switch.		
21.		Availability of Port statistics through industry-standard RMON		
22.		Jumbo frame support for packets.		
23.		Broadcast storm control to help eliminate network traffic storms.		
24.		Must have Network traffic filtering and network control using MAC and IP-Binding based Access Control.		
25.	Warranty	• 5 years comprehensive onsite back-to-back OEM warranty including service and parts. • Specify the warranty and support pack with necessary part/product code.		
26.	Chassis	1U, rack-mounting kit must be included		
27.	Power	Power supply AC 230 V (50/60 Hz)		
28.	Specify the proposed Make			
29.	Specify the proposed Model No			

11.2.16 10G SFP+ LR Transceiver Module for Access Switch

(Must be compatible and from the same OEM as proposed for the Core Switch for Item No. 11.2.13, Item No. 11.2.14 & Item No. 11.2.15)

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	B	C	D	E
1.	Ports	10G BASE-LR port; Bi-Directional Duplex: full only		
2.	Wavelength	SM-1310 nm		
3.	Warranty	• 5 years comprehensive onsite back-to-back OEM warranty including service and parts. • Specify the warranty and support pack with necessary part/product code.		
4.	Specify the proposed Make			
5.	Specify the proposed Model No			

11.2.17 Indoor WIFI Access Points (AP)

Required Make: CISCO/HPE/Juniper/Extreme Networks

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification / Remarks if Any
A	B	C	D	E
1.	Architecture	The Access Point should support IEEE 802.11b/g/n/ac/ac Wave 2 standards		
2.		Frequency of Radio 1 shall be 2.4 GHz b/g/n 20/40 MHz (2x2:2 stream)		
3.		Frequency of Radio 2 shall be 5 GHz b/g/n/ac/ac Wave 2 20/40/80 MHz (3x3:3 stream)		
4.		Should have minimum 2 Internal Antennas		
5.		Should have minimum 1x GE RJ45		
6.		Radio 1 should minimum Throughput: 300Mbps		
7.		Radio 2 should minimum Throughput: 1300Mbps		
8.		Should support minimum 20 dBm Transmission Power on both Radio		
9.		The Max Transit Power of the AP+ Antenna should be as per WPC norms for indoor Access Point defined by WPC & SACFA, Department of Telecommunications, Govt of India. OEM requires to provide undertaking letter stating that AP will be configured as per WPC guidelines for Indoor AP		

		and also submit the WPC certificate showing approval.		
10.		AP should be able to handle minimum 100 concurrent users/devices.		
11.		AP should be IPv6 ready from day one.		
12.	Mobility	Should support wireless controller discovery		
13.		Should support minimum 16 SSIDs		
14.	Security	User/Device Authentication with WPA and WPA2 with 802.1x, local authentication, support for RADIUS and active directory.		
15.		Solution should have support for Captive portal for guest authentication in association with Wireless Controller.		
16.		Solution should support devices authentication/Access List based on MAC address Filtering.		
17.		Should detect and suppress Rogue APs from day one		
18.		Solution should have security for application-level filtering based on IP/Users/Group		
19.		APs should support spectrum analysis to detect RF Interference in indoor area.		
20.	Management	It should be able to managed by virtual/physical wireless controller.		
21.		Should support web-based secured management interface HTTP/HTTPS, CLI (Telnet/SSH), SNMP v1/2, 3.		
22.		Support Wall mounting option and necessary mounting kit should be provided with product.		
23.		AP mounting kit should be with locking mechanism so that AP cannot be removed without using special tools.		
24.		It should support Operating Temperature 0°C to 40°C		
25.		It should be WI-FI Alliance Certified and RoHS Compliant		
26.	Warranty	• 5 years comprehensive onsite back-to-back OEM warranty including service and parts with support & subscription of all modules/software/components/features required to utilize the product/solution with all features enabled and as per requirement of RFP.		

		• Specify the warranty and support pack with necessary part/product code.		
27.	Specify the proposed Make			
28.	Specify the proposed Model No			

11.2.18 Wireless LAN Controller for Indoor WI-FI Access Point

Required Make: CISCO/HPE/Juniper/Extreme Networks

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	**B**	**C**	**D**	**E**
1.	Hardware	It Must be standalone Hardware based Solution. (VM Based Solution will not be accepted)		
2.		Access Point & Wireless Controller must be of Same Make/OEM and work as WI-FI unified Solution		
3.		Redundancy Features: Controller Must support Active- Active and Active-Passive.		
4.		Should Support minimum 200 x 802.11 ac Wave2 base WIFI Access Points quoted for above with all required licenses		
5.		Should support minimum Concurrent 20000 clients/users/devices		
6.		Should Support minimum 4000 VLANs		
7.		Minimum 10 Gbps Throughput		
8.		Should have minimum 2 x 10G RJ45 Port or Should have minimum 2 x 10G SFP+ Ports with 10G SFP+ LR Transceivers (1310 nm) supplied with product from day 1.		
9.		Should have minimum 2 x 1G RJ45 Port		
10.		Should have minimum 1 x Management/Console Port		
11.	General Feature Requirements	Ability to map SSID to VLAN.		
12.		The Solution should have Built-in Wireless/RF optimization feature.		
13.		Should support automatic channel selection – interference avoidance.		
14.		Should provide real-time charts/log showing interferers per access point, on a per- radio, per-channel basis.		
15.		The controller should support Hitless Failover and automated load balancing. User sessions and AP traffic should be load balanced to optimize network		

		utilization during peak periods and maximize availability during unplanned outages.		
16.		Wireless solution should have the technology to eliminate sticky clients and boosts Wi-Fi performance by ensuring that clients associate with the best access point.		
17.		Controller should provide air-time fairness between different speed clients – slower clients should not be starved by the faster clients and faster clients should not adversely affected by slower clients.		
18.		Should support an ability to dynamically adjust channel and power settings based on the RF environment.		
19.		Should have System Internal Captive Portal for guest management.		
20.		Controller should support Spectrum Analysis feature to detect interference from different sources.		
21.		Controller Should provide real-time charts showing interference for access point, on a per-radio, per-channel basis.		
22.		Should support IPv6.		
23.	System Architecture	Centralized MAC addresses filtering		
24.		Should support onboard/ external DHCP server		
25.		Controller should support Onboard / External AAA server		
26.		The proposed architecture should be based on controller-based Architecture within AP deployment. While Encryption / decryption of 802.11 packets should be performed at the AP.		
27.		Support seamless roaming between various access points deployed on same subnet and different subnets.		
28.	QoS features	Per user bandwidth Rate Limiting		
29.		Self-healing (on detection of RF interference or loss of RF coverage)		
30.		Should support per user, per device, and per application/TCP-port prioritization		
31.		Dynamic load balancing to automatically distribute clients to the least loaded 802.11 channel and AP; load balancing must not require any client specific configurations or software		
32.		Adaptive RF management that provides		

		the capability to pause channel scanning / adjust RF scanning intervals based on application and load presence.		
33.		Support for configuring media streams with different priority to identify specific video streams for preferential quality-of-service treatment.		
34.	RF Management	Should be able to load balance clients across channels and access points		
35.		Should be able to load balance clients based on client count		
36.		Should be able to load balance clients based on effective throughput on AP		
37.		Should be able to use client and throughput as a measure to load balance between bands		
38.	Inline Security Features	Should allow authenticated client devices to roam securely from one access point to another, within or across subnets, without any perceptible delay Security during re association.		
39.		Controller should support AES-128 and AES-256 encryption		
40.		WLC should support WIDS/WIPS for security including Rogue AP detection and prevention, Evil-twin/AP spoofing detection and Ad-Hoc detection, jamming attack, SSID spoofing, Same network rogue AP, MAC spoofing		
41.		WLC should support WIDS/WIPS to detect Management Frame flood, Probe request flood, Null probe flood, EAP handshake flood, ARP Replay, Rogue client impersonation, Rogue authorization		
42.		WIPS/WIDS future should be able to detect Rogue stations and association to rogue AP, Active probing, DE authentication Flood, Disassociation Flood, RTS abuse, CTS abuse, Unencrypted data Frames, Unauthorized encryption schemes		
43.		WLC should support WIPS/WIDS Classification type mentioned below. 1) Detect RF-based DoS. 2) Detect Traffic injection-based DoS DE authentication Flood 3) Detect Traffic injection-based DoS Disassociation Flood. 4) Detect P2P wireless bridge 5) Detect unencrypted data frames		
44.		WIPS/WIPS feature should take following protection measures to prevent wireless attacks. a) Spoofing De-Authentication frames towards Rogue AP clients.		

		b) Block a client after repeat authentication failures		
45.	Warranty:	• 5 years comprehensive onsite back-to-back OEM warranty including service and parts with support & subscription of all modules/software/components/features required to utilize the product/solution with all features enabled and as per requirement of RFP. • Specify the warranty and support pack with necessary part/product code.		
46.	Specify the proposed Make			
47.	Specify the proposed Model No			

11.2.19 Enterprise Next Generation Firewall/Unified Threat Management

Required Make: Palo Alto/Check Point Software Technologies/ Fortinet

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	**B**	**C**	**D**	**E**
1.	Basic Criteria	• OEM should have support Centre in India.		
2.	Minimum Hardware Specification	• Minimum 2 x 10GbE SFP+ Ports form day 1 and 2 x 10G SFP+ LR with 1310 nm Transceivers must be supplied/included with product from day 1		
3.		• Minimum 4 x 1GbE SFP Ports from day 1 and with 4 x 1G SFP LR with 1310 nm Transceivers must be supplied/included with product from day 1		
4.		• Minimum 8 x 1GbE RJ45/Copper Ports from day 1		
5.		• Minimum 1 x USB Port		
6.		• 2 x Integrated AC input Power Supply		
7.		• Minimum 1x Console Management Ports (RJ45) & should provide http, https, SSH/Telnet, SNMP based management console for managing and configuring		
8.		• Ports can be configurable for LAN/ WAN/DMZ		
9.		• Device must have 1+1 redundant AC power input supply and must be included/supplied with the product from day 1 with necessary mounting kit.		

10.	Appliance Throughput	• Minimum Firewall throughput of 10 Gbps or higher		
11.		• Minimum 50,000 New Sessions/sec		
12.		• Minimum 10,00,000 Concurrent sessions		
13.		• Minimum 1 Gbps or higher SSL VPN throughput		
14.		• Minimum 1 Gbps or higher Threat Protection/Prevention Throughput with Firewall/Web Filtering+ Application Control+ IPS+ Malware/Antivirus Protection enabled in real world/Enterprise/Production traffic scenario.		
15.		• Minimum 2.5 Gbps or higher IPS Throughput in real world/Enterprise/Production traffic scenario.		
16.		• Minimum 1.5 Gbps or higher NGFW Throughput with Firewall/Web Filtering + Application Control+ IPS enabled in real world/Enterprise/Production traffic scenario.		
17.		• On Device HDD Storage with 250+ GB for inbuilt/on device Centralized Logging & Reporting.		
18.	General Features	• Should be appliance based and rack mountable.		
19.		• The Firewall should support "Route Mode" or "Transparent Mode" and support web proxy/ssl proxy		
20.		• Device in built DNS server for prevention of phishing and pharming scams involving DNS poisoning while reducing time taken for DNS mapping.		
21.		• Intrusion Prevention System		
22.		• Gateway Anti-virus		
23.		• Gateway Anti-spam with DLP functionality		
24.		• Web Content & Application Filtering		
25.		• Application Control		
26.		• Cloud Sandbox/Zero-day prevention		
27.		• Botnet Blocking/Prevention		
28.		• Bandwidth Management/Traffic Shaping capable of setting guarantee bandwidth and maximum bandwidth per firewall policy		

29.		• High Availability with Active-Active & Active-Passive mode		
30.		• The High Availability should be supported in the Firewall from the day one and without any extra license.		
31.		• The Firewall should support Static, Policy Base, Identity based, Multicast routing and dynamic routing for RIP1 & 2, OSPF, OSPFv3, BGP4, RIPing, Server Load Balancing.		
32.		• The Firewall should belong to a family of products that attains industry standard Approved Certification and attains IPv6 Ready Phase 2 & IPv6 Certification		
33.		• Should support IPv6 ACL to implement security Policy for IPv6 traffic.		
34.		• Support for user authentication over SMS and in built two factor authentications without any additional cost.		
35.		• The proposed solution should support integration with Windows NTLM, Active Directory, LDAP, Radius, or Local Database for user authentication.		
36.		• Country Based Blocking, FQDN support and should support MIX mode deployment		
37.		• Should have an integrated wireless controller and should be able to manage multiple wireless access points centrally from web admin console.		
38.		• Should have feature/provision for Virtual System/Appliance/Domain or equivalent feature which splits the physical Appliance/domain into virtual by configuration/Software. (Optional).		
39.		• Should have Feature/module for Device Logging & Reporting and support for appliance/Hardware based Centralized Logging & Reporting Solution deployed additionally.		
40.	Gateway Antivirus, Anti-Spyware and Anti-Spam	• Firewall must be able to scan http, https, IMAP, IMAPs, FTP, FTPs, POP, POPs, SMTP, SMTPs & MAPI protocols with AV signatures		
41.		• Virus, Worm, Trojan Detection and Removal, Automatic Virus signature database update, Real-Time blacklist, Redirect spam mails to dedicated email address, image-		

		spam filter, Spam Notification, Zero-hour Virus outbreak protection.		
42.	Web and Application Filtering	• The proposed solution should be able to enable or disable Web Filter per firewall policy or based on firewall authenticated user groups for both HTTP and HTTPS		
43.		• Should blocks web plug-ins such as ActiveX, Java Applet, and Cookies & Shall include Web URL block, Web keyword block, Web Exempt List		
44.		• The proposed solution must work as a HTTP proxy server with integrated Firewall, Anti-Virus, Anti-Spam, Content filtering, IPS.		
45.		• The proposed solution should be able to enable or disable Web Filter per firewall policy or based on firewall authenticated user groups for both HTTP and HTTPS		
46.		• The solution shall allow administrators to create multiple new local URL filtering categories besides dynamic categories		
47.		• Application Control Solution must provide option to create custom signature for applications & it should able to understand		
48.		• Well-known application like P2P, Voice, etc. without any dependency on the ports		
49.	Intrusion Prevention System (IPS)	• For different attacks like Mail Attack, FTP Attack, HTTP Attack, DNS Attack, ICPM Attack, TCP/IP Attack, DOS and DDOS Attack, Telnet/SSH Attack.		
50.		• Signatures: Custom, IPS Policies: Multiple, Custom, User-based policy creation, Automatic real-time updates.		
51.		• Should have a built-in Signature and Anomaly based IPS engine on the same unit and Anomaly based detection should be based on thresholds.		
52.		• Able to prevent denial of service and Distributed Denial of Service attacks on signature.		
53.		• Administrator shall be able to configure DoS policies that are used to associate DoS settings with traffic that reaches an interface based on defined services, source and destinations IP/Range.		
54.	Advance Threat Protection	• Advanced Threat Protection (Detect and block network traffic		

		attempting to contact command and control servers).		
55.		• It must have facility to block Bot/Botnet attacks from day 1 & also should scan Mobile devices security from day 1.		
56.	Cloud based Zero-day prevention or Sandboxing	• Solution should have support to inspect executables and documents containing executable content including .exe, .com, .dll, .docx, rtx, etc, and malware behaviour analysis and should support cloud based Zero-day prevention or Sandboxing.		
57.	VPN	• L2TP, PPTP, IPsec and SSL must be a part of Basic Appliance.		
58.		• The SSL VPN should be integrated solution and there should be no user-based licensing for SSL VPN with SSL encryption/decryption.		
59.		• Firewall must have at least 400 SSL VPN client in Route mode from the day 1.		
60.		• The system shall support IPSEC site-to-site VPN and remote user VPN in transparent mode without any additional cost for VPN clients.		
61.	Load Balance	• For Automated Failover/Failback, Multi-WAN failover, High availability: Active-Active. QoS, OSPF, RIPv2, BGP, Policy routing based on Application and User support Round Robin Load Balancing		
62.	Bandwidth Management	• Application and user bandwidth management, Multi WAN bandwidth reporting, guaranteed bandwidth policy. Bandwidth for User, Group, Firewall Rule, URL and Applications.		
63.	Mobile application control and mobile malware protection	• Device should have feature to provide Security for Mobile devices protection for Apple IOS and Android environments which includes mobile application control and mobile malware		
64.	Monitoring and Reporting System	• Reports should be accessible through HTTP/HTTPS/Client based.		
65.		• Should provide reports in Graphical/CSV/Excel/PDF format or cloud based.		
66.	Warranty &License for UTM/NGFW	• The proposed solution must be licensed per unit for 5 years with Full UTM/Enterprise subscription for IPS, Gateway Antivirus, Anti-Spyware, and Content/Web Filtering System, Applications		

		Control, Cloud based zero-day prevention/sandboxing, Mobile security, Botnet Prevention/blocking, Analysis & Management along with Logging &Reporting Solution with 24x7 Product (Hardware/Software) support. • 5 years comprehensive onsite back-to-back OEM warranty including service and parts. • Specify the warranty and support pack with necessary part/product code.		
67.	Specify the proposed Make			
68.	Specify the proposed Model No			

11.2.20 Wireless AC300 Router

Required Make: Any Make

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	**B**	**C**	**D**	**E**
1.	Protocols	IEEE 802.11n/g/b		
2.	Interface	1 10/100Mbps WAN Port 3 10/100Mbps LAN Ports		
3.	Antenna	2 fixed 5dbi or higher antennas		
4.	Button	1 Reset Button		
5.	Wireless Link Rate	IEEE 802.11n up to 300Mbps		
6.	Frequency Range	2.4GHz Range		
7.	Working Mode	Router Mode Universal Repeater/ Range Extender Mode Access Point Mode WISP		
8.	Wireless Encryption	WPA WPA2		
9.	Wireless Function	Enable/Disable Wireless Radio (Optional) Wireless Access Control		

10.	Internet Connection Type	Dynamic IP, PPPOE, Static IP, PPTP (Optional), L2TP (Optional)		
11.	DHCP Server	Built-in DHCP server DHCP Client List Address Reservation		
12.	Virtual Server	Port Forwarding DMZ Host		
13.	Parental/Access Control	Client Filter or Access Control Mac Filter or IP & MAC Binding		
14.	Dynamic DNS	Dynamic DNS Supported		
15.	Other	Bandwidth Control (Optional) Mac Address Clone Remote Web Management		
16.	Hardware & Software Version	Quoted product must be latest Hardware & Software Version released by OEM and it should not be outdated or end of sale and end of support.		
17.	Warranty	• 5 years comprehensive warranty including service and parts.		
18.	Specify the proposed Make			
19.	Specify the proposed Model No			

11.2.21 Face Plate: 1 Port/2Port

#	Parameters		Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	**B**		**C**	**D**	**E**
1.	**General Features**	Single/Double Gang as per the requirement & complete in all respect and as directed to the satisfaction of engineer.			
2.		Labeling provision must be there.			

11.2.22 Cat 6A Shielded RJ45 jack

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	B	C	D	E
1.	**General Features**	Must be compliant with latest ISO/IEC 11801 A1.1 draft and ratified TIA/EIA 568.2-D for the support of 10GBASE-T.		
2.		Must use insulation displacement connectors (IDC)		
3.		Allow for re-terminations without signal degradation according to acc. to IEC60352-3		
4.		Be constructed of high impact, flame-retardant thermoplastic and robust diecast zinc alloy housing with icon options for better visual identification.		
5.		With shutter/Dust cap provision to protect from dust and moisture. If shutter/Dust cap provision is not available on RJ45 jack it is acceptable on faceplate also.		
6.		It should follow 568A/B wire patterns/configuration.		
7.		The I/O should be Tested/verified by Lab which is accredited by DANAK, and laboratory complies with the criteria in DS/EN ISO/IEC 17025:2005.		
8.		**Plastic Housing**: Robust diecast Zinc Alloy housing plated with Bright Nickel/Cu.		
9.	**Mechanical Characteristic:** Jack Connector	**Operating Life:** Minimum 750 insertion cycles		
10.		**Contact Material:** Copper alloy/Gold-Plated Bronze.		
11.		**Contact Plating:**>0.75 micro meters Gold /Ni		

11.2.23 Cat 6A Patch Cord 2,5 and 10 meters

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	B	C	D	E

1.	**General Features**	The work area equipment cords shall be comply with TIA/EIA 568.2-D Performance Specifications for 4 pair Category 6A Cabling.		
2.		Category 6A equipment cords: Shall be round, and consist of eight insulated 26 AWG, stranded bare copper conductors, arranged in four color-coded twisted-pairs each pair should be foiled with aluminum shield.		
3.		Equipped with 8-position shielded plugs on both ends, wired straight through with standards compliant wiring.		
4.		Should have 50 micro inches of gold plating over nickel contacts.		
5.		Modular cords should include a molded strain relief boot.		
6.		Should be certified by UL/DNV-GL/third party for type test approval		
7.	**Mechanical Characteristic:**	**Conductor size:** 26 AWG stranded bare copper.		
8.	Patch cord Cable	**Jacket:** LSZH		
9.	**Mechanical Characteristic:**	**Temperature range:** -10°C to +60°C		
10.	Plug	**Operating life:** Minimum 750 insertion cycles		
11.		**Contact Material:** Copper alloy/Gold-plated bronze.		
12.		**Contact plating: >0.75 micrometers**Au/Ni		

11.2.24 Cat 6A Shielded RJ45 Connectors

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	**B**	**C**	**D**	**E**
1.	RJ45 shielded Field Termination Connector	Should be UL listed and IP 20 rated and Re-terminations may be performed with wire of either larger or		

		equal size than originally terminated as per IEC60352-4.		

11.2.25 Cat 6A Cable

#	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	**B**	**D**	**E**
1.	Shall be of FTP Solid cable LSZH 23 AWG solid copper conductor for superior conductivity		
2.	Shall support network line speeds up to 1 gigabit per second for 100-meter distance or better		
3.	Shall have as HDPE (High Density Polyethylene) Insulation Material		
4.	Shall have LSZH (Low Smoke Zero Halogen) Sheath		
5.	Shall be 4-pair Unshielded twisted pair with a cross filler/ isolator (+), meeting Category 6 tested till 250 MHz as per EIA/TIA-568C.2.		
6.	Should comply with all of the performance requirements for current and proposed applications such as Gigabit Ethernet, 100BASE-Tx, digital video and Voice		
7.	The Category 6 Solution shall fully comply with the link segment specifications for 1000 Base-TX in addition to the ANSI/TIA and ISO/IEC Category 6 requirements.		
8.	Shall have the length printed on the outer jacket of the cable after every meter.		
9.	Specify the proposed Make		
10.	Specify the proposed Model No		

11.2.26 PVC Batten Pipe

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	**B**	**C**	**D**	**E**
1.	**General Features**	Conformity to Indian Standard: IS:9537(Part-3) Latest Classification of Conduit: Medium Mechanical Stress.		

2.	**Construction**	Material: PVC Resin Nominal Size of the Conduit, (mm): 20 or 25 or both Length (Metres) > 3 Socket ended conduit (at one end) : yes		
3.	**Certification**	ISI Marked		

11.2.27 12 Port/ 24 port SM LC LIU Fibre Panel Unloaded

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	**B**	**C**	**D**	**E**
1.	General Features	1U low-profile, high density fiber optic shelf shall be proposed that can be used for a combination of splicing and termination of fiber optic.		
2.		Adequate number of Fusion splice holder trays should be included in the RFP.		
3.	Ports	The Panel shall accommodate up to 12/24 fibers to be spliced / terminated		
4.		The front plate of the panel shall be included in the proposal that can support LC-Style Duplex adapters		
5.		The alignment sleeve of the LC Duplex adapter shall be of Phosphor Bronze with integrated collapsible steel clip. This allows better retention and alignment of fiber connectors on patch cords and pigtails		
6.		The SM adapter shall support OS1 as well as OS2 fibers / patch cords.		

11.2.28 Fibre Patch Cord

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	**B**	**C**	**D**	**E**
1.	**General Features**	Shall be Single mode OS2, LC to LC, Fiber patch cords of length 3 mtrs.		

2.		**Regulatory Compliance:** RoHS 2011/65/EU **Jacket:** Low Smoke Zero Halogen (LSZH) **Optical Components Standard:** ANSI/TIA-568-C.3		
3.		**Connector Interface:** LC **Operating Temperature:** -10 degree Celsius to +60 degree Celsius		
4.	**Connector Optical Performance**	Insertion Loss, Maximum: 0.30 dB Return Loss, minimum: 27.0 dB		

11.2.29 LC Pigtail SM

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	**B**	**C**	**D**	**E**
1.	**General Features**	The Pigtail shall be assembled with 125 µm single mode fiber for SM fiber cabling system.		
2.		The pigtail shall be assembled using 900 micron buffered fiber		
3.		The pigtails shall be terminated with SM LC-Style connector for SM cabling system 6.00 lb @ 0 ° C and 3.00 lb @ 90 ° C		
4.		The LC connector on the pigtail shall meet Optical Components Standard ANSI/TIA-568-C.3.		

11.2.30 6 Core OS2 FOC Cable

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	**B**	**C**	**D**	**E**
1	**Features**	The fiber type should be 9/125µm, OS2 Matched Cladding Single Mode optical fiber.		
2		Fiber should be coated with a crylate coating.		

3	**Physical Characteristics:**	Nominal mode field diameter 9 µm		
4		Mode field diameter tolerance ±0.5µm		
5		Cladding diameter 125µm		
6		Cladding diameter tolerance ±1.0µm		
	Optical Characteristics:	**Attenuation (of cable with fibers):**		
7		At1310nm ≤0.35dB/km		
8		At1550nm≤0.22dB/km		
9		Polarization Mode Dispersion (PMD) ≤0.06 (ps/sqkm)		
10		Proof Stress level > 0.7(~1%) GPa		
11		Core-Cladding Concentricity error ≤0.5µm		
12		Cladding non-circularity ≤0.7%		
13		Diameter of outer coating layer 242±5µm		
14		Cut-off wavelength ≤1260nm		
15	**Construction Details:**	Germanium doped core with no phosphorus i.e., reduced tendency for hydrogen degradation	.	
16		COATING UV-curable dual layer acrylate coating which ensure excellent micro bending and abrasion resistance.		
17		Fibre /Tube Identification Color coded		
18		Fibre protection (Tubes) Polybutylene Terephthalate (PBT)		
19		Corrugated Steel tape Armor (ECCS Tape)		
20		Inner Jacket High density polyethylene		
21		Outer Jacket UV Stabilized High density polyethylene (HDPE).		
22		Outer Jacket Color Black		
23		Central Strength Member Fibre reinforced Plastic (FRP)		
24	**Dimensions:**	Cable Diameter 15.1±4.0 mm		
25	**Mechanical and Environmental**	Max Bend Radius (full load) 10XOverall diameter		
26		Max. Bending Radius (during installation) 20XOverall diameter		
27	**Performance:**	Max. Tensile Strength-Short Term Minimum 2000N		
28		Max. Crush Resistance-Short Term Minimum 4000N/10cm		
29		Operating Temperature range 10°Cto+70°C		

11.2.31 9U/15U Wall Mount Network Rack

Racks to be supplied with 5 Years repair or replacement comprehensive warranty with parts from make **Vertive/Rittal/APC/Emerson/HPE/Lenovo/Dell.**

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	**B**	**C**	**D**	**E**
1	**Rack Size**			
2	• 9U/15U Wall mount			
3	• Lock & key with front glass door			
4	• Powder coated Steel cabinet			
5	**Accessories** to be Supplied with each rack unit			
6	• Min 1 Cooling Fan			
7	• Min 1 Cable Manager			
8	• Min 1 Equipment placement tray			
9	• Min 5 Socket/Plug Power Strip (With repair/ replacement)			
10	• Rack must be supplied with minimum 1 (One) no. of standard hardware pack/bag (which includes mounting nut-bolts, cable ties etc.) per each Rack Unit for mounting at least 6 Nos Network/IT equipment.			
11	**Warranty:** Min. 5 Years comprehensive warranty with parts like FAN, Power Strip (repair or replacement)			
12	**Proposed Make:**			

13	**Proposed Model/Part Code:**			

11.2.32 27U RACK

Racks to be supplied with 5 Years repair or replacement comprehensive warranty with parts from make **Vertive/Rittal/APC/Emerson/HPE/Lenovo/Dell.**

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	**B**	**C**	**D**	**E**
1.	Type of Server Racks	Portable Racks		
2.	Size of Server Rack Enclosure	27U		
3.	Depth of the Rack (mm)	Upto 1000		
4.	Mount Type	Free-Standing		
5.	Front and Back doors should be perforated with at least 60% or higher perforations	Yes		
6.	Front & Back door should be lockable utilizing a single key with the doors	Yes		
7.	Side Panels With Key Locks and Slam Latch	Yes		
8.	Secure Locks	Available		
9.	Rear split door design	Yes		
10.	Keyboard Tray Sliding and Rotary	Yes		
11.	Cable channel in rear side for cable management	Yes		
12.	Support cable entry from top or bottom	Yes		
13.	Vertical & Horizontal managers	Yes		
14.	Numbers of Rack trays	1		
15.	Number of Fan For Heat dissipation (nos.)	4		
16.	Heavy Duty Caster Wheels	Yes		
17.	PDU Power Strips	Available		
18.	Warranty	5 Years Comprehensive onsite warranty		

11.2.33 42 U Rack

Racks to be supplied with 5 Years repair or replacement comprehensive warranty with parts from make **Vertive/Rittal/APC/Emerson/HPE/Lenovo/Dell.**

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification / Remarks if Any
A	B	C	D	E
1.	Dimension	Rack Width: 750-800mm Rack Depth/Length: 1000 mm to 1070 mm		
2.		Rack Height : 42U		
3.		Color: Black		
4.		Rack Equipment Mounting should be as per EIA-310 standard: 19" along with 'U' marking.		
5.		Rack should have minimum weight carrying Capacity of 500Kgs.		
6.	Doors	Front and Back doors should be perforated with at least 60% or higher perforations		
7.		Front & Back door should be lockable utilizing a single key with the doors.		
8.		Rack should have single front door and it should be able to move to the opposite side or interchanged with rear doors. Doors should be able to be removed easily with simple lift-off design.		
9.		Rack should have Split rear doors to improve access and serviceability to rear of rack mounted equipment.		
10.	Side Panels	Side Panels should be of Half-height on each side for easy access.		
11.		Side panels should be lockable utilizing a single key with the doors.		
12.	Cable access	It should have cable access slots in the roof for overhead cable egress.		
13.		It should have unobstructed cable access from bottom of the Rack through a raised floor.		
14.	Wire managers	Two vertical wire/cable managers/panels should be provided in front and back of the rack for cable management.		

15.	Power Distribution Units	Rack must be supplied with 2 x PDUs per Rack - Vertically Mounted, 32AMPs with 25 Power Outputs. (20 Power outs of IEC 320 C13 Sockets & 5 Power outs of 5/15 Amp Sockets), Electronically controlled circuits for Surge & Spike protection 32AMPS MCB, 5 KV AC isolated input to Ground & Output to Ground.		
16.		PDUs provided should have LAN/RJ-45 Port and it should be able to manage by assigning IP address to fetch the Information like current/voltage/power being drawn from each port or total power from PDU.		
17.		All types of Power Cables (like C13 to C14, etc..) required to power up the various Network/Server devices should be supplied/provided with it from day one.		
18.	Hardware/Accessories provided	Rack must be supplied with minimum 2 (two) nos. of standard hardware pack/bag (which includes mounting nut-bolts, cable ties etc.) for mounting IT equipment and tools for enclosure adjustment.		
19.		Pre-installed full-enclosure height Integrated and adjustable rear accessory channel to accommodate PDUs and vertical cable organizers.		
20.		Rear accessory channel should be able to move to other locations of the enclosure along the side brace to resituate cable management as per requirement.		
21.		Minimum 2 x 1U Mountable Cable Manager and maximum as per site requirement needs to be supplied from Day one.		
22.	Warranty	5 Years repair or replacement comprehensive warranty with parts.		
23.	Specify the proposed Make			
24.	Specify the proposed Model No			

11.2.34 10 KVA UPS

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	B	C	D	E
	Generic			
1.	Rating in KVA (KVA)	10.0 KVA		
2.	Technology	IGBT-PWM with/ without inbuilt isolation transformer		
3.	Input Power	single phase 160V - 260V sinewave, 50Hz		
4.	Output power	Single phase 230V +/-1% sinewave 50 Hz		
5.	Backup time on Full Load of 10 KVA	60 minutes		
6.	Minimum VAH (VAH)	8000		
7.	Warranty for UPS (Years)	5		
8.	Movable trolley for Batteries	Without trolley but with rack		
9.	Warranty for battery	2 years		
10.	Comprehensive maintenance with replacement for battery post warranty	3 years		
11.	Degree of Protection	IP20		
12.	Cabling 5 meters for input and out put	Without		
13.	Paralleling kit for synchronising	With		
14.	Installation and Commissioning	Yes		
	Functional			
15.	Maximum overshoot and Under shoot of output rated voltage	4		
16.	Voltage Regulation from no load to full load (%)	< / = 3%		
17.	20% Overload limit for minimum 10 minutes	Yes		
18.	Overall Efficiency (%)	>/=90%		
19.	Total Harmonic Distortion (THD) (%)	Maximum 3%		
20.	50% Overload limit for minimum 1 minutes	Yes		

21.	**Protection**	Protection for under voltage at battery terminal at 10.5V per 12 V battery		
22.		Protection of Over voltage, Short Circuit & overload at UPS output terminal		
23.	Specify Proposed Make			
24.	Specify Proposed Model			

11.2.35 For Radiology workstation (CT/MRI/X-Ray/Ultrasound) for PACS with Diagnostic Monitor

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification / Remarks if Any
A	**B**	**C**	**D**	**E**
1.	Basic Features	Power supply, 16xDVDRW, USB optical mouse, CPU cooling kit, Intel Xeon E7 – 4809v3 processor or Higher		
2.	Memory Specifications	16GB DDR4 – 1333 or Higher RAM, 128GB NVMe PCIe M.2 SSD or higher		
3.	Keyboard	Full Size 104 key USB Keyboard (should be regular in size and not be slim type)		
4.	Operating System	Factory Pre-loaded/Pre-installed and activated licensed - Window 10 Professional 64 bit upgradable to windows 11 professional 64 bit version or - Windows 11 professional 64 bit version with latest updates with Restore/ Recovery CD		
	General Specifications			
5.	Medical Grade Diagnostic display for PACS/CT/MRI4MP Fusion with graphic card. Touchpad and Medical QA & QC software–latest model should be quoted with the latest graphic cardtosupport4MPina dual view/single and2MPclinical display.			
6.	The display system should include the display, Graphic card and Medical QA software along with accessories of the same make.			
7.	Should be based on the latest screen technology IPS-TFT color LCD. LED backlight and size of 30.4”or more with are solution of 4MP Native 4MP (2560x 1600) Configurable to 2 x 2MP+ (1280 X 1600) Configurable to 2x2MP (1200X1600)			
8.	Luminance Maximum 1050 cd/m2 more and DICOM calibrated at 600 cd/m2 with a contrast ratio of 1500:1			
9.	Power consumption 100W @ calibrated luminance of 600			

	cd/m² 64W @ calibrated luminance of 400 cd/m²		
10.	Screen protection with a protective, non-reflective glass cover		
11.	Should have necessary front senor for automated calibration and image optimization features to improve uniformity.		
12.	The display should have the feature to be connected to a project or through the graphic card in the same configuration.		
13.	Warranty – 5 years comprehensive onsite back-to-back OEM warranty for Desktop, Monitor, Keyboard and mouse including service and parts.		
14.	Each diagnostic display should be combined with a 2MP clinical grade display 20inch or more of the same brand for RIS and reporting and should have a DICOM calibrated luminance of 180cd/m2 with front sensor and cleanable protective cover with 5 years warranty.		
15.	Network Connectivity	Ethernet	
16.	Specify the proposed make		
17.	Specify the proposed model		

11.2.36 Robotic CD/DVD Writer for PACS

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification / Remarks if Any
A	**B**	**C**	**D**	**E**
1.	Disc Capacity:	100 discs		
2.	Number of Drives:	2		
3.	Disc Recorders:	Latest-generation CD-R/DVD-R recordable drives; optional 12xBD-R drives		
4.	Recordable Formats:	CD:CD-R,CD-RW,CD-Audio(CD-DA), Video-CD, MP3to CD-Audio, most other industry -standard CD formats DVD:DVD±R, DVD±RW,DVD±DL		
5.	Print Method:	Thermal inkjet		
6.	Print Resolution:	Upto 4800 dpi		
7.	Print Head:	Semi-permanent; user replaceable		
8.	Ink Cartridges:	Separate high-capacity ink cartridges for Cyan, Magenta, Yellow and Black (CMYK)		
9.	Colors:	16.7million		
10.	ColorMatching:	Color profile included		
11.	Robotics:	High-speed belt drive		
12.	Data Interface:	USB 2.0 for CD/DVD drives		
13.	Power:	Universalauto-switching100-240VAC, 50/60Hz,5.0A		
14.	Certifications:	UL, UL-C, CE, FCC Class A, RoHS, WEEE		

15.	Onsite OEM Warranty (years)	5 years comprehensive onsite back-to-back OEM warranty for Desktop, Monitor, Keyboard and mouse including service and parts		
16.	Specify the proposed make			
17.	Specify the proposed model			

11.2.37 55" LED:

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification / Remarks if Any
A	**B**	**C**	**D**	**E**
1.	Connectivity	USB Ports : 2 or higher		
2.		HDMI Ports :2 or higher		
3.		Wireless Connectivity		
4.		Internet Connectivity		
5.	Display	Screen size: Minimum 55"		
6.		LED		
7.		Full HD		
8.		Resolution :1920 x 1080 or higher		
9.	Smart Features	QMS Display app must be available in play store		
10.		Should support Multimedia playback - images, video, live TV feed & scrolling multi-lingual text.		
11.	Operating System	: Android		
12.	Audio	Speaker: 5W + 5W @ 8Ω		
13.	Specify the proposed Make			
14.	Specify the proposed Model No			

11.2.38 40" LED:

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification / Remarks if Any
A	**B**	**C**	**D**	**E**
1.	Connectivity	USB Ports : 2 or higher		
2.		HDMI Ports :2 or higher		
3.		Wireless Connectivity		
4.		Internet Connectivity		
5.	Display	Screen size: Minimum 40"		

6.		LED		
7.		Full HD		
8.		Resolution: 1920 x 1020 or higher		
9.	Smart Features	QMS Display app must be available in play store		
10.		Should support Multimedia playback - images, video, live TV feed & scrolling multi-lingual text.		
11.	Operating System	Android		
12.	Audio	Speaker: 5W + 5W @ 8Ω		
13.	Specify the proposed Make			
14.	Specify the proposed Model No			

11.2.39 Touch Screen Token Dispensing Kiosk:

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	**B**	**C**	**D**	**E**
1.	Touch Details	Number of Touch Points: 60 points with palm rejection		
2.		Touch Point Speed :<120 milliseconds		
3.		Input Type : Finger, Thin Glove		
4.		Touch Communication : USB		
5.		Operating System Support :Windows 8 or higher/Android/IOS		
6.		Touch screen kiosk with 8” or higher LCD/LED Screen		
7.	Physical Specifications	Operating Environment :0 to +40 degrees C, Relative Humidity, non-condensing 90%		
8.		Storage Environment : -10 to +60 degrees C		
9.		Video Input :DVI, VGA, HDMI or directly install the QMS application		
10.		Audio : Speaker: 5W + 5W @ 8Ω		

11.		Cover Glass: Chemically Strengthened		
12.		VESA Pattern: 400mm x 400mm		
13.		Power Supply: Internal 110/220 VAC Power Supply		
14.		Power Consumption: 100W Typical, 130W Max		
15.		RoHS Compliant : Yes		
16.		Alpha-numeric token number should also be supported with pattern such as AB0001-AB9999. Each type of service should have its unique series of Queue-Token number with an Alphabet embedded in-front such as Department A – A0001~A9999, Diagnosis Services B – B0001~B9999.		
17.		QR code and bar code scan facility should be made available in the token dispensing kiosks that will also facilitate confirmation of the patient arrival in OPD for patients with prior appointment via mobile app/browser.		
18.	General Requirements	Compact and portable and durable for heavy usage		
19.		Must be able to handle 5000 or more transactions per day		
20.		Must be able to print bar-code/QR code		
21.		Able to dispense tickets with neat edges		
22.		Able to prompt users via sms/email when ticket supply is running low		
23.		Capable of high speed printing (at least 30 tickets per minute) and in thermal paper format		
24.		Ticket length can be programmable		
25.		The machine spare parts		

		should be easily available for at least 5 years One Ticket roll with 800 or more tickets should be used for token number issuing		
26.		Ticket printout must be in blue color		
27.		If required, card reader option should able to use with touch & button token dispenser		
28.		If required, patient should able to enter their name, contact details in touch dispenser		
29.		Hospital logo must printout on token.		
30.		Ticket finishing alert		
31.		Token machine able to restore previous token number after restart or power failure		
32.		Token machine able to print QR code. QR code will help patients to know current queue status.		
33.	Queue Token Ticket Minimum Information	Hospital's and Department' name		
34.		Date and time of issue		
35.		Queue-Token number in numeric and bar-coded form (if required)		
36.		Counter numbers of the counters providing the services		
37.		Number of people waiting to be served / the next patients to be called to be served		
38.		Expected waiting time which should be computed by the Queuing System; and Cautionary and/or customized messages, e.g. "Season's Greetings", "Queue-Token numbers may not be called in sequence". These words should be edited through the Web-System real time as and when the user would want to change.		

39.	Specify the proposed Make		
40.	Specify the proposed Model No		

11.2.40 Centralized HCI Server

[**Note**: The proposed solution will be hosted at SMC's datacenter. SI is responsible to size and propose the IT infrastructure required for smooth functioning of the entire solution as per OEM guidelines and standard industry practice. SI must supply, install, commission and manage/maintain the IT Infrastructure components such as, Servers, Databases, Storage Solution, Software and other supporting IT components as required at the Data Centre that has been proposed as part of the bid. The sizing for HMIS, PACS, QMS, EMS, NMS and any other solution component is to be considered on HCI. The mentioned quantity of nodes is the minimum requirement. The SI is free to quote the HCI node quantity and usable storage capacity as per the solution requirement to meet the RFP requirements.]

#	Parameters	Requirement/Minimum Specification	Matched [Yes/No]	Deviation from Specification/ Remarks if Any
A	B	C	D	E
1.	Type of Hyper-Converged Infrastructure (HCI) offered	Generic node HCI (consisting of both Compute and Storage)		
2.	Total usable physical Cores available (after installation of HCI software resources required for solution) in the offered solution available after 1 node failure	256 or higher. Pl. specify.		
3.	Total usable Storage available after 1 node failure in TB without using De-duplication, Compression (after installation of HCI software resources required for solution) in the offered solution. Bidder is required to use RAID 5 / RAID 6 / RAID 10 as per best practices and to maximize the	200 TB or higher. Pl. specify offered HDD combination with capacity.		

	performance of entire software solution proposed.			
4.	Ratio of SSD, SAS &NL–SAS storage in the HCI	20:30:50		
5.	Total usable RAM in GB available (after installation of HCI software resources required for solution) in the offered solution available after 1 node failure	2304 or higher		
6.	Types of data copies across Cluster available in the offered solution	2 or higher		
7.	Number of Nodes offered in HCI Cluster	6 or higher (must have protection of 1 node failure)		
8.	Number of Sockets offered per Node	2 or higher		
9.	Number of Populated Processor per Node	2 or higher		
10.	Number of minimum Cores per processor	24 or higher		
11.	Type of Processor offered in the system	Latest Intel Xeon processor 2.60 GHz or higher. Pl. specify offered processor.		
12.	RAM Capacity (Raw) offered per node in GB	512 GB or higher. Pl. specify offered RAM.		
13.	RAM scalability per node in TB	1.5 TB or higher. Pl. specify.		
14.	No of cache drives per node	2 or higher		
15.	Cache offered per Node in GB	1600 or higher. Pl. specify,		
16.	Number of Network ports per node	4 or higher		
17.	Throughput Per Network port	10 Gbps		
18.	Number of HCI Interconnect Switches to be offered for Interconnection all	2 or higher		

	the Network Ports in the Cluster			
19.	HCI Interconnect Switches throughput available per port	10 Gbps or higher		
20.	Stacking/uplink port & throughput of HCI Interconnect Switches	2 * 40 Gbps or higher		
21.	Number of Available and Active Ports for 10 Gbps Throughput per Switch	24 or higher		
22.	Scalability: Any additional node/storage/RAM added to the cluster to augment compute/ storage/ memory capacities, the same performance per node on upgraded node/Storage/RAM	Yes		
23.	IOPS delivered at 70:30 Read: Write Ratio on 8K block size with latency of 5ms maximum for each node	20000 or higher		
24.	Supported industry protocols by HCI	1.NFS, 2. iSCSI		
25.	HCI capability to support File/Block Services and file/block replication across clusters for	1.NFS, 2. iSCSI		
26.	Inline data Compression & Deduplication function licenses for	Unlimited		
27.	Number of nodes HCI supports in same cluster/deployment	24 or higher		
28.	Hypervisor to be integrated with SDS	Outside Kernel		
29.	Bare-metal/non-Bare metal type of	BareMetal		

	virtualization hypervisor			
30.	HCI Features	HCI must support all industry's standard Hypervisor		
31.		HCI should have independently scaled storage and compute as and when needed without any downtime.		
32.		HCI should have a mechanism for Metadata protection for all offered nodes within the cluster so as to provide high availability and no single point of failure.		
33.		HCI is configuration of SSD/SAS/NL SAS/NVMe then the caching must be on appropriate capacity of SSD/NVME drives to meet the IOPS/performance requirements.		
34.		HCI should have VLAN for networking and integrated VM IP's Management capabilities,		
35.		HCI should have a security compliance methodology to ensure a highly secure environment.		
36.		HCI should provide management through a remote/ On-Premise GUI console. Also, it should provide storage, compute & hypervisor metrics on a per VM/Node level as well as health and monitoring of the entire platform.		
37.		HCI should have the platform support LDAP Active Directory integration. The Clients installed on any major Operating System.		
38.		Platform should support monitoring via SNMPv3, email alerting via SMTP.		
39.		Capable of creating instant snapshots of virtual machines and maintaining multiple copies of snapshots & clones,		
40.		Capability to support native VM/ HCI level replication for installed Hypervisor		
41.		HCI should have redundant components with no single point of failure in the system for power supply module, fan etc.		
42.		It should have Intelligent Optimum Data Distribution across all nodes.		
43.		HCI should support container-based application,		
44.		HCI should have single management tool supporting multiple clusters		

45.		HCI should have Management tool which is built into the solution & scales with the cluster		
46.		HCI should have built-in-security for data		
47.		HCI should have VM/Node-centric policy-based management.		
48.		HCI should have Management platform providing the box automation and orchestration for appliance-based operational tasks.		
49.		HCI should support for VM or APP consistent snapshot/backup.		
50.		HCI should have data at Rest Encryption.		
51.		HCI should have management tool which is Built-in to the solution, scales with the cluster, and does not require separate hardware infrastructure.		
52.		HCI should have integrated/Software-based remote Data recovery/Replication solution.		
53.		HCI should have Data Integrity Checks.		
54.		HCI should have Management tool providing visibility of HCI network.		
55.		HCI should have integrated management for hyperconverged infrastructure and virtual environment switch Storage & Compute/Storage/Network/Computer.		
56.		Proposed HCI platform should offer hardware independent scale up and scale out functionality.		
57.		HCI software license should be perpetual.		
58.	The offered product to have support from OEM for	Updation for Patches and Bug fixes for software Within support period.		
59.		Upgradation of version software within support period.		
60.		Service and support from OEM within support period.		
61.	Integration with Third-Party FC Storage	Yes		
62.	Necessary cable with sufficient length to be provided for connecting the	Yes		

	Nodes to the Switch (meters)			
63.	Number of Years upto which support to be provisioned from OEM for Updation (Patches and Bugfixes) within support period	5 or higher		
64.	Number of Years upto which support to be provisioned from OEM for Upgradation of version within support period	5 or higher		
65.	Number of years of service and support to be provisioned from OEM	5 or higher		
66.	Number of years & Type of warranty	5 years with 24x7 comprehensive warranty support with all parts.		
67.	Specify the proposed make			
68.	Specify the proposed model			

11.2.41 NMS Application

#	Specifications	Compliance [Yes/No]	Remarks if Any
A	**B**	**C**	**D**
1.	The Network Management Solution should be hardware or software based providing secured web-based consoles to monitor AP and Switches. It should have appropriate scalability to manage the number of AP and switches.		
2.	NMS solution should provide a dashboard that includes but not restricted to AP and Switch Health, Client Health, Topology It should provide with valuable information that gives insights into the network to more quickly detect and react to potential Wi-Fi user experience degradation.		
3.	The Network Management Software should allow flexible definitions of administrator roles and responsibilities with RBAC (Role based Access Control) for different teams.		
4.	The Network Management Software should provide an interface to configure and deploy Command Line Interface (CLI) across one or more IP devices.		
5.	The Network Management Software should enable performance management by Providing customizable		

	dashboard(s).		
6.	The NMS should provide reports encompassing key performance indicators (KPIs)and exported in multiple formats.		
7.	Solution must provide RF Heat maps, Network Monitoring and Troubleshooting, Centralized software updates, Network mapping with floor plans.		
8.	Display the location of each rogue device with respect to the AP reporting it.		
9.	System should provide current list of clients connected to each AP, graphical details of wireless traffic & data rates on a per client basis, recent history of association with APs for clients		
10.	System should provide Visual Connection Diagnostics for wireless client that speeds and simplifies troubleshooting and Client problem resolution.		
11.	NMS should support Traffic analysis that displays AP/Switch, WLAN and AP traffic And Client trends overtime. It should quickly find the most heavily loaded AP/Switches/Ports or top network users and devices. It should be able to inform about the Client OS types and application consumption for wireless Clients. NMS should support filter of statistics by band (2.4GHz,5GHz, or both) and traffic direction (uplink, downlink, or both), and monitor Client load over time.		
12.	System should support extended duration of logging through Syslog.		
13.	The operations solution should provide a network “dashboard” on screens, providing up- to-date network-wide information on key usage and performance metrics. The operations solution should monitor all network devices including edge switches to which wireless devices are connected.		
14.	NMS solution should support Wired network (Network Switch) management.		
15.	NMS solution should support viewing switch information, switch registration and authentication.		
16.	NMS solution should support Switch inventory (model, FW version, last backup, etc.) management.		
17.	NMS solution should support Health and performance monitoring (status, traffic stats, errors, Clients etc.) with alarms.		
18.	NMS solution should support scheduled Firmware Upgrade.		
19.	NMS solution should support creating Switch configuration and switch stack, file backup and restore.		
20.	NMS should allow port settings.		
21.	NMS should allow viewing switch port details, switch health, switch alarms, switch events, LLDP neighbours, traffic trends in the switch and firmware history of the		

	switch.		
22.	NMS solution should support Clients troubleshooting-search by Client MAC to find the AP/switch port for that Client		

D. Appendix

APPENDIX 1: CONTRACT AGREEMENT

(Draft of contract agreement, subject to change at the time of execution)

This agreement made on the <Day> day of <Month, Year> between the Commissioner of the Surat Municipal Corporation (hereinafter called the "**Authority**") of the FIRST PART and _____ (Name of Bidder) having its registered office at _____ (Address of the company where registered) (hereinafter called "**Successful Bidder**" of the SECOND PART) through < Name of Authorized Representative>, <Designation> empowered to sign and execute the agreement as the SECOND PART which shall include successors assigns.

Whereas the FIRST PART the Authority is desirous in view of a tender (bid) notice no.xxxxxxxxxxxxxxxxxxxxxxxx that the services as per the Financial quote in the proposal submitted by the bidder should be provided by the SECOND PART. <<Approving authority>> of the Authority by its resolution no. <> dated <> has accepted a tender of the Successful Bidder for the work of Implementation and post implementation support of Development of IT Infrastructure (HMIS, PACS, QMS, Network Infrastructure) for Surat Municipal Corporation (SMC) Hospitals & Health Centres at Surat, Gujarat Project for the sum of Rs. <> + GST for a period of 5 years.

AND WHEREAS the work has been awarded to the SECOND PART vide letter <>, dated <>.

AND WHEREAS the SECOND PART has agreed for Implementation and post implementation support of "Development of IT Infrastructure (HMIS, PACS, QMS, Network Infrastructure) for Surat Municipal Corporation (SMC) Hospitals & Health Centres at Surat, Gujarat" vide its bid.

Now this agreement witnesseth as follows:

- The following documents shall be deemed to form part and be read and considered as part of this agreement. viz
    a. The said Request for Proposal –xxxxxxxxxxxxxxxxxxxxxxxxof the FIRST PART
    b. Addendum & Corrigendum to the RFP (if any)
    c. Technical and Financial Proposal submitted by the SECOND PART
    d. LOA issued by FIRST PART
    e. Non-Disclosure Agreements.
- In this agreement, words and expressions shall have the same meaning as are respectively assigned to them in the tender papers hereinabove referred to.
- The SECOND PART will deliver the Scope of Work/Services as detailed in the RFP xxxxxxxxxxxxxxxxxxxxxxxxx.

- In consideration of the payments to be made by the Authority, the FIRST PART to the Successful Bidder, the SECOND PART as hereby covenants with the Authority to provide services and deliverables in conformity to the bid documents referred as per the RFP. In case of failure of the Successful Bidder to deliver the products/services, the Authority is authorized to get the work done from third party at the cost and risk of the SECOND PART.
- The Authority and the Successful Bidder shall make payments to either party in accordance with the provisions of the Request for Proposal. All other terms and conditions shall be as per the RFP.
- The contract shall be governed by the Laws in India and shall be subject to the **Jurisdiction of Surat.**

IN WITNESS WHEREOF the parties mentioned hereinbefore cause this agreement to be signed and hereunto set their respective hands and seals through their authorized representatives on the day, month and year first above written at SURAT.

In presence of:

1. Witness _____

   Name _____

2. Witness _____

   Name _____

For and on behalf of
(< Name >)
Commissioner

Surat Municipal Corporation

_____
(< Name >)
Commissioner
Surat Municipal Corporation

1. Witness _____

   Name _____

2. Witness _____

   Name _____

For and on behalf of
Successful Bidder

_____
(< Name >)
Designation of Authorized Representative

Sealed with the Common Seal of the Surat Municipal Corporation in the presence of

1. _____

2. _____
Authorized Persons of SMC

APPENDIX 2: APPROVED LIST OF BANKS

Under this contract, wherever the contractor is required to submit F.D.R., bank guarantee, etc. against payment towards any deposit or advance e.g. SD, etc. Such F.D.R, bank guarantees, etc. shall be produced from any one of the following Nationalized Bank as listed below:

1. All Nationalized Banks including the Public Sector Bank
2. A U Small Finance Bank
3. The Ahmedabad Mercantile Co-Operative Bank Ltd
4. Axis Bank
5. City Union Bank
6. DBS Bank India Limited
7. DCB Bank
8. Equitas Small Finance Bank
9. Federal Bank
10. HDFC Bank
11. ICICI Bank
12. IndusInd Bank
13. Kalupur Commercial Co-Operative Bank Limited
14. Kotak Mahindra Bank
15. Nutan Nagrik Sahakari Bank Ltd.
16. Rajkot Nagarik Sahakari Bank Ltd.
17. RBL Bank
18. Saraswat Co-operative Bank
19. Saurashtra Gramin Bank
20. Standard Chartered Bank
21. Tamilnadu Mercantile Bank
22. The Gujarat State Co-Operative Bank
23. The Mehsana Urban Co-Operative Bank Ltd.
24. The Surat District Co-Operative Bank
25. The Surat Peoples Co-Operative Bank
26. Ujjivan Small Finance Bank

APPENDIX 3: FORMAT FOR PERFORMANCE BANK GUARANTEE

<<To be printed on Rs. 300/- Stamp Paper >>

IN CONSIDERATION OF bid document submitted by_____ Through _____ for _____

SURAT Smart City Development Ltd (SSCDL) for Selection of System Integrator for Development of Integrated IT Infrastructure (HMIS, PACS, QMS, Network Infrastructure) for Hospitals & Health Centres under Surat Municipal Corporation (hereinafter referred to as the "said work") on the terms and conditions of the AGREEMENT dated the _____day of _____ 20___ executed between SSCDL on the one part and _____ (the Company) on the other part (hereinafter referred to as "the said AGREEMENT) and on the terms and conditions specified in the Contract, Form of Offer and Form of acceptance of Offer, true and complete copies of the offer submitted by the Company, the said Acceptance of Offer and copy of the said AGREEMENT are annexed hereto.

The Company has agreed to furnish SSCDL in Guarantee of the Nationalized Bank for the sum of Rs. <(PBG Amount in Word and Figure)> only which shall be the Security Deposit for the due performance of the terms covenants and conditions of the said AGREEMENT. We <Name of the Bank> Bank Registered in India under Act and having one of our Local Head Office at <Address of the Bank> do hereby guarantee to SSCDL.

i. Due performance and observances by the Company of the terms covenants and conditions on the part of the Company contained in the said AGREEMENT, AND

ii. Due and punctual payment by the Company to SSCDL of all sum of money, losses, damages, costs, charges, penalties and expenses that may become due or payable to SSCDL by or from the Company by reason of or in consequence of any breach, non-performance or default on the part of the Company of the terms covenants and conditions under or in respect of the said AGREEMENT.

AND FOR THE consideration aforesaid, we do hereby undertake to pay to SSCDL on demand without delay demur the said sum of Rs. <(PBG Amount in Word and Figure)> or such lesser sum, as may be demanded by SSCDL from us as and by way of indemnity on account of any loss or damage caused to or suffered by SSCDL by reason of any breach, non-performance or default by the Company of the terms, covenants and conditions contained in the said AGREEMENT or in the due and punctual payment of the moneys payable by the Company to SSCDL thereunder and notwithstanding any dispute or disputes raised by the Company in any suit or proceeding filed before the Court relating thereto our liability hereunder being absolute and unequivocal and irrevocable AND WE do hereby agree that –

a) The guarantee herein contained shall remain in full force and effect during the subsistence of the said AGREEMENT and that the same will continue to be enforceable till all the claims of SSCDL are fully paid under or by virtue of the said AGREEMENT and its claims satisfied or discharged and till SSCDL certifies that the terms and conditions of the said AGREEMENT have fully and properly carried out by the Company.

b) We shall not be discharged or released from liability under this Guarantee by

reason of

i. any change in the Constitution of the Bank or
ii. any arrangement entered into between SSCDL and the Company with or without our consent;
iii. any forbearance or indulgence shown to the Company,
iv. any variation in the terms, covenants or conditions contained in the said AGREEMENT;
v. any time given to the Company, OR
vi. any other conditions or circumstances under which in a law a surety would be discharged.

c) Our liability hereunder shall be joint and several with that of the Company as if we were the principal debtors in respect of the said sum of Rs. < (PBG Amount in Word and Figure)> Only.

d) We shall not revoke this guarantee during its currency except with the previous consent of SSCDL in writing;

e) Provided always that notwithstanding anything herein contained our liabilities under this guarantee shall be limited to the sum of Rs. < (PBG Amount in Word and Figure)> only and shall remain in force until SSCDL certifies that the terms and conditions of the said AGREEMENT have been fully and properly carried out by the Company.

f) Bank hereby agrees and covenants that if at any stage default is made in payment of any instalment or any portion thereof due to SSCDL under the said AGREEMENT or if the Company fails to perform the said AGREEMENT or default shall be made in fulfilling any of the terms and conditions contained in the said AGREEMENT by the Company, the Bank shall pay to SSCDL demand without any demur, such sum as may by demanded, not exceeding Rs. < (PBG Amount in Word and Figure)> and that the Bank will indemnify and keep SSCDL indemnified against all the losses pursuant to the said AGREEMENT and default on the part of the Company. The decision of SSCDL that the default has been committed by the Company shall be conclusive and final and shall be binding on the Bank/Guarantor. Similarly, the decision of SSCDL as regards the Agreement due and payable by the Company shall be final and conclusive and binding on the Bank /Guarantor.

g) SSCDL shall have the fullest liberty and the Bank hereby gives its consent without any way affecting this guarantee and discharging the Bank/Guarantor from its liability hereunder, to vary or modify the said AGREEMENT or any terms thereof or grant any extension of time or any facility or indulgence to the Company and Guarantee shall not be released by reason of any time facility or indulgence being given to the Company or any forbearance act or omission on the part of SSCDL or by any other matter or think whatsoever which under the law, relating to sureties so releasing the guarantor and the Guarantor hereby waives all suretyship and other rights which it might otherwise be entitled to enforce.

h) That the absence of powers on the part of the Company or SSCDL to enter into or execute the said AGREEMENT or any irregularity in the exercise of such power or invalidity of the said AGREEMENT for any reason whatsoever shall not affect the liability of the Guarantor/Bank and binding on the bank notwithstanding any abnormality or irregularity,

i) The Guarantor agrees and declares that for enforcing this Guarantee by <SSCDL> against it, the Courts at Surat only shall have exclusive jurisdiction and the

Guarantor hereby submits to the same

1.....

2.....

Being respectively the <Branch Manager of the Bank>, who in token thereof, has hereto set his respective hands in the presence of –

1.....

2.....