

E-TENDER DOCUMENT

FOR

SUPPLY/DEVELOP, INSTALLATION & IMPLEMENTATION

OF

HOSPITAL MANAGEMENT

INFORMATION SYSTEM (HMIS)

Tender No: HLL/CHO/HCS/IT/2022/95 Dated 02.12.2022



CIN: U25193KL1966GOI002621

**HLL Bhavan, Poojappura, Thiruvananthapuram -695012,
Kerala, India. Tel: 0471-2354949, (EXTN – 224 /640/266)**

Email: hcstenders@lifecarehll.com | Website – www.lifecarehll.com

CONTENTS

Titles	Page No.
Notice Inviting Tender (NIT)	5
Disclaimer	7
General Instructions to Bidders	8
Section - I Instructions to the Bidders	14
1. Company Background	14
1.1. About HLL	14
1.2. About Hindlabs	14
1.3. Business Verticals	15
1.4. Presence of Hindlabs Diagnostics in India	16
1.4.1. Hindlabs & National Health Mission	17
1.4.2. Hindlabs - Partnering with CGHS Delhi & Mumbai	18
1.4.3. Hindlabs - Partnering with Karnataka State Government	19
1.4.4. Hindlabs- Partnering with Kerala State Government	19
1.4.5. Hindlabs- Partnering with Odisha State Government	19
1.4.6. Hindlabs - Partnering with W. Bengal Government	19
1.4.7. Hindlabs - Partnering with AIIMS	20
1.4.8. Hindlabs – Partnering with NIT Trichy	20
1.4.9. HLL clinic, Trivandrum	20
1.4.10. Hindlabs & Tele-Radiology Services	20
1.5. New expected business	20
1.5.1. ABDM Project Inclusion	20
1.5.2. ABHIM Project Inclusion	21
1.5.3. HCS-HIP (Health Infrastructure Provider)	21
1.5.4. HCS-STEP (Scaleup Technology Provider)	21
1.6. Existing HMIS solutions	21
1.7. Required HMIS solution	22
2. Tender Details	24
2.1. Components of scope of work	26
2.2. Security	26
2.3. Ownership of Data	27
2.4. General Guidelines	27
2.5. Information Security Policy	28
2.6. Define Policies	28
2.7. Integration	28
2.8. Implementation Plan	29
2.9. Deliverables	29
3. Essential Product Standards	30
3.1. Application Architecture	32
3.2. Innovative solutions	33
3.3. Backup solution	33

3.4. Project Deliverable Milestones	33
3.5. Centralized / Common Master Data	35
3.6. Accounting Architecture	36
3.7. Enabling Centralized Procurement	36
3.8. Data Archival	36
3.9. Technical Core Team Members	36
3.10. Supply location	37
Section II	38
1. Eligible Bidders	38
2. Cost of Bidding	40
3. Getting Information from Web Portal	40
4. Bidding Documents	40
5. Clarification of Bidding Documents	41
6. Amendment to Bidding Documents	41
7. Preparation of Bids	41
8. Bid Prices	42
9. Currencies of Bid and Payment	43
10. Submission of Bids	43
11. Deadline for submission of the Bids	45
12. Modification, Resubmission & Withdrawal of Bids	45
13. Bid Opening & Evaluation	45
13.1. Evaluation Framework	45
13.2. Technical Evaluation	46
14. Evaluation and Comparison of Bids	47
14.1. Evaluation of Technical Bid	47
14.2. Evaluation of Price Bid	48
14.3. Confidentiality	48
14.4. Clarification of Bids	49
14.5. Examination of bids, and determination of responsiveness	49
14.6. Negotiation on Bids	50
15. Bid Validity	50
16. Statutory Exemptions	50
17. Bid Security (EMD)	50
18. Tender processing Fee	51
19. Alterations and Additions	51
20. Indemnification Clause	52
21. Security deposit	52
22. Performance Security	52
23. Forfeiture of Security Deposit	54
24. Payment Terms	54
25. Delivery / Demonstration Terms	55
26. Transfer of Ownership	55
27. Taxes and Duties	55

28. In case of Default	55
29. Risk Purchase	55
30. Force Majeure	56
31. Clarifications on Bids	56
32. Contacting HLL	56
33. HLL's right to accept or reject any or all bids	56
34. Settlement of Disputes	57
35. Governing Language	57
36. Award Criteria	57
37. Notification of award	57
38. Termination	58
39. Corrupt or Fraudulent Practices	58
40. Flexibility of Prices	59
41. License and Permits	59
42. Integrity Pact	59
43. Restrictions under rule 144 (xi) of GFR 2017 for bidders from a country sharing land border with India.	60
44. Purchase Preference to Micro and Small Enterprises (MSE'S)	60
45. Provisions of Public Procurement (Preference to Make In India) Order 2017	60
46. Goods and Services Tax (GST)	60
47. Employees of HLL Not Individually Liable	61
48. Workplace/Facilities for Bidder's Site Office	61
49. Residential Accommodation	61
50. Transportation	61
51. Penalty/Performance Guarantee (Warranty) / Annual Maintenance Contract	61
Section III - GENERAL CONDITIONS OF CONTRACT (GCC)	62
1. Definitions	62
2. Application	62
3. Standards	62
4. Use of Contract Documents and Information	62
5. Subcontracts	63
6. Contract Amendments	63
7. Patent Rights	63
8. Assignment	63
9. Termination by Default	63
10. Termination for Insolvency	64
11. Applicable Law	64
12. Notices	64
13. Taxes and Duties	64
14. Delivery and Documents	64
15. Liquidated Damages	64
16. Resolution of Disputes	65
17. Other Terms and Conditions	65

Hospital Management Information System	67
1. HMIS (Hospital Management Information System)	67
2. LIS (Laboratory Information System)	91
3. RIS (Radiology Information System)	98
4. PACS (Picture Archiving and Communication System)	101
5. Teleradiology	104
6. Telemedicine	111
7. Inventory	115
8. General Terms and Condition	119
9. QMS (Queue Management System)	122
10. Ticketing/Helpdesk Module	128
SPECIAL CONDITIONS OF CONTRACT (SCC)	131
Annexure-01 - SELF - DECLARATION	132
Annexure 02 - BID FORM	133
Annexure 03 - CATEGORY DETAILS OF THE ORGANIZATION	135
Annexure 04 - INDEMNITY CERTIFICATE	136
Annexure 05 - PERFORMANCE BANK GUARANTEE FORMAT	137
Annexure 06 - CHECK LIST	138
Annexure 07 - SELF DECLARATION – COMPLIANCE TO RULE 144 (XI) OF GFR 2017	140
Annexure 08 – QUALITY COST BASED SYSTEM	141
Annexure 09 - SELF DECLARATION – MAKE IN INDIA PREFERENCE	143
Annexure 10 - PRE-CONTRACT INTEGRITY PACT	144
Clause.1. Commitments of HLL	145
Clause 2. Commitments of BIDDERS/ CONTRACTORS	145
Clause.3. Previous contravention and Disqualification from tender process and exclusion from future contracts	147
Clause .4. Equal treatment of all Bidders / Contractors / Subcontractors	147
Clause .5. Consequences of Violation / Breach.	147
Clause.6. Fall Clause	148
Clause .7. Independent External Monitor(s)	149
Clause.8. Criminal charges against violating Bidder(s)/ Contractor(s)/ Subcontractor(s)	149
Clause.9. Facilitation of Investigation	149
Clause.10. Law and Place of Jurisdiction	149
Clause.11. Other legal Actions	150
Clause.12. Validity and Duration of the Agreement	150
Clause. 13. Other provisions	150
Annexure 11 – QCBS Illustration	150

HLL LIFECARE LIMITED

(A Government of India Enterprise)

Healthcare Services Division, Corporate Head Office, Poojappura, P.O,
Thiruvananthapuram – 695012, Kerala, India.

Tel: 0471 235 4949, 0471 2350959 (EXTN – 224/640/266)

NOTICE INVITING TENDER (NIT)

IFB No: HLL/CHO/HCS/IT/2022/95

02.12.2022

HLL Lifecare Limited (HLL), a Government of India Enterprise, invites an e-tender from eligible, competent, and experienced parties who are capable of executing the following item/work meeting the requirements as per our tender.

Sl. No	Particulars	Description
1	Name of Item/Work	Supply/Develop, Install & Implementation of Hospital Management Information System (HMIS)
2	Location of Delivery/Work	HLL designated/Clients Medical Lab, Imaging Centers, Hospitals & Polyclinics across the globe.
3	Brief description of Item/Work	Purchase of Hospital Management Information System (HMIS) for Healthcare Services Division, HLL Lifecare Ltd
4	Bid Security/EMD	Rs.10,00,000.00
5	Bid submission fee/Tender fee	Rs.5,000.00
6	Period of completion	90 days from the date of the Letter of Intent /Notification of Award/ Purchase order, failing which the POs will stand Cancelled.
7	Price Validity	180 days from the date of opening of bid
8	Eligibility criteria for Bidders	As per the Tender document
9	HLL A/c Details for payment of Tender Fees and EMD (Payment mode: NEFT/RTGS)	Name of Bank: HDFC BANK A/c number: 00630330000563 IFSC Code: HDFC0000063 Branch name: Vazhuthacaud, Thiruvananthapuram
10	Date of Pre-Bid Meeting	09-12-2022, 11.00 AM

11	Prebid Meeting Link	To join the Pre Bid meeting, click this link: https://meet.google.com/xij-nvin-jfg Otherwise, to join by phone, dial +1 505-596-1493 and enter this PIN: 189 440 971#
12	Last date and time for online submission of online bids	23-12-2022 at 15:00 hrs.
13	Date and time of opening of e-tender	24-12-2022 at 15:00 hrs.
14	Address for Communication at HLL regarding the tender	Deputy General Manager (HCS) Healthcare Services Division HLL Lifecare Limited Corporate & Regd. Office, HLL Bhavan, Poojappura, Thiruvananthapuram-695012. E-mail: hcstenders@lifecarehll.com

DISCLAIMER

The information contained in this document is confidential in nature. The bidders shall not share this information with any other party not connected with responding to this Tender Document. All information contained in this Notice Inviting Tender (NIT) provided / clarified are of good interest and faith. This is not an agreement and is not an offer or invitation to enter into an agreement of any kind with any party.

The information contained in this Tender Document or subsequently provided to Bidder(s) whether verbally or in writing by or on behalf of HLL Lifecare Limited (HLL) shall be subject to the terms and conditions set out in this Tender Document and any other terms and conditions subject to which such information is provided. Though adequate care has been taken in the preparation of this NIT document, the interested firms shall satisfy themselves that the document is complete in all respects. The information is not intended to be exhaustive.

Interested Bidders are required to make their own enquiries and assumptions wherever required. Intimation of discrepancy, if any, should be given to the specified office immediately. If no intimation is received by this office by the date mentioned in the document, it shall be deemed that the NIT document is complete in all respects and firms submitting their bids are satisfied that the NIT document is complete in all respects. If a bidder needs more information than what has been provided, the potential bidder is solely responsible for seeking the information required from HLL.

HLL reserves the right to provide such additional information at its sole discretion. In order to respond to the Bid, if required, and with the prior permission of HLL, each bidder may conduct his own study and analysis, as may be necessary.

HLL Lifecare limited (HLL), Thiruvananthapuram reserves the right to reject any or all of the applications submitted in response to this NIT document at any stage without assigning any reasons whatsoever. HLL also reserves the right to withhold or withdraw the process at any stage with intimation to all who submitted the NIT Application.

HLL reserves the right to change/modify/amend any or all of the provisions of this NIT document. Such changes would be posted on the website of HLL (www.lifecarehll.com) and the CPP portal. Neither HLL nor their employees and associates will have any liability to any prospective respondent interested to apply or any other person under the law of contract, to the principles of restitution for unjust enrichment or otherwise for any loss, expense or damage which may arise from or be incurred or suffered in connection with anything contained in this NIT document, any matter deemed to form part of this NIT document, the award of the Assignment, the information and any other information supplied by or on behalf of HLL or their employees and Bidder or otherwise arising in any way from the selection process for the Assignment.

GENERAL INSTRUCTIONS TO BIDDERS

1. This tender is an e-Tender and is being published online in Government eProcurement portal, <https://etenders.gov.in/eprocure/app>
2. Bid documents including the Bill of Quantities (BoQ) can be downloaded free of cost from the Central Public Procurement Portal of Government of India (e-portal). All Corrigendum/extension regarding this e-tender shall be uploaded on this website i.e. <https://etenders.gov.in/eprocure/app>.
3. The tender and its corrigendum/extension will also be published in our company website, URL address: <http://www.lifecarehll.com/tender>.
4. The tendering process is done online only at Government eProcurement portal (URL address: <https://etenders.gov.in/eprocure/app>). Aspiring bidders may download and go through the tender document.
5. All bid documents are to be submitted online only and in the designated cover(s)/envelope(s) on the Government eProcurement website. Tenders/bids shall be accepted only through online mode on the Government eProcurement website and no manual submission of the same shall be entertained. Late tenders will not be accepted.
6. The complete bidding process is online. Bidders should be in possession of a valid Digital Signature Certificate (DSC) of class II or above for online submission of bids. Prior to bidding DSC needs to be registered on the website mentioned above. If the envelope is not digitally signed & encrypted the Purchaser shall not accept such open Bids for evaluation purpose and shall be treated as non-responsive and shall be rejected.
7. Bidders are advised to go through “Bidder Manual Kit”, “System Settings” & “FAQ” links available on the login page of the e-Tender portal for guidelines, procedures & system requirements. In case of any technical difficulty, Bidders may contact the help desk numbers & email ids mentioned at the e-tender portal.
8. Bidders are advised to visit CPPP website <https://etenders.gov.in> regularly to keep themselves updated, for any changes/modifications/any corrigendum in the Tender Enquiry Document.
9. The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the Government eProcurement Portal.

9.1 Registration

- a) Bidders are required to register in the Government e-procurement portal, obtain 'Login ID' & 'Password' and go through the instructions available in the Home page after log in to the CPP Portal (URL: <https://etenders.gov.in/eprocure/app>), by clicking on the link "Online bidder Enrolment" on the CPP Portal which is free of charge.
- b) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- c) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- d) They should also obtain Digital Signature Certificate (DSC) in parallel which is essentially required for submission of their application. The process normally takes 03 days' time. The bidders are required to have Class II or above digital certificate or above with both signing and encryption from the authorized digital signature Issuance Company. Please refer online portal i.e. - <https://etenders.gov.in/eprocure/app> for more details.
- e) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class II or above Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g., Sify / nCode / e-Mudra etc.), with their profile.
- f) The bidder then logs in to the site through the secured log-in by entering their user ID/password and the password of the DSC / e-Token.
- g) The Bidder intending to participate in the bid is required to register in the e-tenders portal using his/her Login ID and attach his/her valid Digital Signature Certificate (DSC) to his/her unique Login ID. He/She have to submit the relevant information as asked for about the firm/contractor. The bidders, who submit their bids for this tender after digitally signing using their Digital Signature Certificate (DSC), accept that they have clearly understood and agreed to the terms and conditions including all the Forms/Annexure of this tender.
- h) Only those bidders having a valid and active registration, on the date of bid submission, shall submit bids online on the e-procurement portal.
- i) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible for ensuring that they do not lend their DSCs to others, which may lead to misuse.
- j) Ineligible bidder or bidders who do not possess valid & active registration, on the date of bid submission, are strictly advised to refrain themselves from participating in this tender.

9.2 Searching for Tender Documents

- a) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Form of Contract, Location, Date, Value etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization
- b) Once the bidders have selected the tenders they are interested in, they may download the required documents/tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS/ e-mail in case there is any corrigendum issued to the tender document.
- c) The bidder should make a note of the unique Tender ID assigned to each tender; in case they want to obtain any clarification/help from the Helpdesk

9.3 Preparation of Bid

- a) Bidders should take into account any corrigendum published on the tender document before submitting their bids.
- b) Please go through the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the documents that need to be submitted. Any deviations from these may lead to rejection of the bid.
- c) The bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR /DWF/JPG formats. Bid documents may be scanned with 100 dpi with a black and white option which helps in reducing the size of the scanned document.
- d) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g., PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" or "Other Important Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid and need not be uploaded again and again. This will lead to a reduction in the time required for the bid submission process.
- e) Note: My Documents space is only a repository given to the Bidders to ease the uploading process. If Bidder has uploaded his Documents in My Documents space, this does not automatically ensure these Documents being part of Technical Bid.

10. More information useful for submitting online bids on the CPP Portal may be obtained at <https://etenders.gov.in/eprocure/app>
11. Tenderers are required to upload the digitally signed file of scanned documents. Bid documents may be scanned with 100 dpi with a black and white option which helps in reducing the size of the scanned document. Uploading application in location other than specified above shall not be considered. Hard copy of application shall not be entertained.
12. Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk. The 24x7 Help Desk details are as below: -

For any technical related queries please call at 24 x 7 Help Desk Number:
0120-4001 062, 0120-4001 002, 0120-4001 005, 0120-6277 787

Note: - International Bidders are requested to prefix +91 as country code

E-Mail Support: For any Issues or Clarifications relating to the published tenders, bidders are requested to contact the respective Tender Inviting Authority.

Technical - support-eproc@nic.in | Policy Related - cphp-doe@nic.in

13. Bidders are requested to kindly mention the URL of the portal and Tender ID in the subject while emailing any issue along with the contact details.
14. Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender. Address for communication and place of opening of bids:

Deputy General Manager (HCS)
Healthcare Services Division
HLL Lifecare Ltd, HLL Bhavan, Poojappura,
Thiruvananthapuram, Kerala, India- 695012,
Tel: 0471- 235 4949, 235 0959, Extn : 640, 224, 266.
Email – hcstenders@lifecarehll.com

15. The bids shall be opened online at the **Office of the Deputy General Manager (HCS)** in the presence of the Bidders/their authorized representatives who wish to attend at the above address. If the tender opening date happens to be on a holiday or non-working day due to any other valid reason, the tender opening process will be done on the next working day at the same time and place.
16. More details can be had from the **Office of the Deputy General Manager (HCS)** during working hours. The Tender Inviting Authority shall not be responsible for any failure, malfunction or breakdown of the electronic system while downloading or uploading the documents by the Bidder during the e-procurement process.

17. A firm/bidder shall submit only one bid in the same bidding process. A Bidder (either as a firm or as an individual or as a partner of a firm) who submits or participates in more than one bid will cause all the proposals in which the Bidder has participated to be disqualified.

18. Online Tender Process:

The tender process shall consist of the following stages:

- i. Downloading of tender document: Tender document will be available for free download on Government e-procurement portal (URL: <https://etenders.gov.in/eprocure/app>).
- ii. **Pre-bid meeting:** HLL shall hold a pre-bid conference (PBC) as per schedule. In this PBC, HLL would address the clarifications sought by the bidders with regard to the NIT document and the project. HLL reserves the right not to respond to any/all queries raised or clarifications sought if, in their opinion and at their sole discretion, they consider that it would be inappropriate to do so or do not find any merit in it. The corrigendum or final decisions after PBC will be hosted on HLL website “www.lifecarehll.com”.
- iii. Publishing of Corrigendum: All corrigendum shall be published on Government e-procurement portal (URL: <https://etenders.gov.in/eprocure/app>) and HLL website (URL address: <http://www.lifecarehll.com/tender>) and shall not be available elsewhere.
- iv. Bid submission: Bidders have to submit their bids along with supporting documents to support their eligibility, as required in this tender document on Government e-procurement portal. No manual submission of bid is allowed, and manual bids shall not be accepted under any circumstances.
- v. Opening of Technical Bid and Bidder short-listing: The technical bids will be opened, evaluated and shortlisted as per eligibility and technical qualifications. All documents in support of technical qualifications shall be submitted (online). Failure to submit the documents online will attract disqualification. Bids shortlisted by this process will be taken up for opening the financial bid.
- vi. Opening of Financial Bids: Bids from the qualified bidders shall only be considered for opening and evaluation of the financial bid on the date and time mentioned in the critical date section.

19. Tender Processing Fees and Bid Security (EMD):

Tender fee (Non-refundable) and EMD as per the tender conditions shall be paid separately, thru RTGS/NEFT transfer in the following HLL A/c details:

Name of Bank	:	HDFC BANK
A/c number	:	00630330000563
IFSC Code	:	HDFC0000063
Branch name	:	Vazhuthacaud, Thiruvananthapuram

Documents of the above transactions (UTR NUMBER and DATE OF UTR) completed successfully by the bidder, shall be uploaded at the locations separately while submitting the bids online.

***Note:** Any transaction charges levied while using any of the above modes of payment has to be borne by the bidder. The supplier / contractor's bid will be evaluated only if payment is effective on the date and time of bid opening.*

20. HLL Lifecare Limited does not bind themselves to accept the lowest or any bid or to give any reasons for their decisions which shall be final and binding on the bidders.
21. HLL Lifecare Limited reserves themselves the right to accept the whole or any part of the tender and the bidder shall be bound to perform the same at his quoted rates.
22. In case, it is found during the evaluation or at any time before placing of PO or after its execution and during the period of subsistence thereof, that one or more of the eligibility conditions have not been met by the bidder or the applicant has made material misrepresentation or has given any materially incorrect or false information, appropriate legal/penal etc., action shall be taken by HLL Lifecare as deemed fit.
23. Conditional bids and bids not uploaded with appropriate/desired documents may be rejected outright and decision of HLL Lifecare Limited in this regard shall be final and binding.
24. The technical bids should be uploaded as per the requirements of NIT and should not contain price information otherwise the bid will be rejected.
25. HLL Lifecare Limited Ltd. reserves the right to verify the claims made by the bidders and to carry out the capability assessment of the bidders and HLL Lifecare Limited's decision shall be final in this regard.
26. **Submission Process:**

For submission of bids, all interested bidders have to register online as explained above in this document. After registration, bidders shall submit their technical bid and financial bid online on Government e-procurement portal (URL: <https://etenders.gov.in/eprocure/app>).

***Note:** It is necessary to click on "Freeze bid" link / icon to complete the process of bid submission otherwise the bid will not get submitted online and the same shall not be available for viewing/ opening during the bid opening process.*

DEPUTY GENERAL MANAGER(HCS)

INSTRUCTIONS TO THE BIDDERS (ITB)

SECTION - 1

1. COMPANY BACKGROUND:

1.1. About HLL

A company aimed at realizing the government's family planning program, HLL Lifecare Limited started as a manufacturer of natural rubber latex condoms. The foundation paved the way for a big dream that was in a nascent stage, aimed at changing the lives of a number of people. And as HLL metamorphosed into a nation's brand, the dream grew by leaps and bounds. The company spread its wings to diversify into a healthcare major, with great emphasis over healthcare services. As the company successfully completes 56 years of consistent quality performance, HLL is entrusted with greater responsibilities – the affordable pharmacy network across the nation, healthcare services and much more. It's no wonder that, at HLL, work is really about 'innovating for healthy generations', each day.

The glorious journey of excellent healthcare has traversed over 56 years. HLL Lifecare Limited proudly celebrated its Golden Jubilee year in 2016 - A celebration of the rich legacy of a great organization that has always reached out to the society, through quality services and products, with a commitment to the welfare of people.

Today, HLL has emerged into a global corporate of international acclaim spread across 118 nations, taking under its wings 4 subsidiaries comprising 21 offices and 7 manufacturing units across locations having a multitude of products ranging from contraceptives & hospital products to pharmaceuticals: and services from diagnostics to infrastructure development.

HLL has indeed emerged as a force to reckon with, its name being synonymous with integrity, credibility and concern for society striving continuously to uplift the quality standards and cost-effectiveness of healthcare in the country.

1.2. About Hindlabs

HLL is one of the few organizations who are capable of delivering medical diagnostic services in a partnership model on a national level. Healthcare Services (HCS) Division of HLL Lifecare Limited provides Medical Diagnostic Services (Laboratory, Imaging, and Teleradiology) and other facilities like Wellness Clinic/Polyclinic to partner institutions under the brand name "HINDLABS". Our first center in association with CGHS started in February 2008 in New Delhi. Currently, HLL has over 231 Diagnostic labs and 52 imaging centers, 4000 plus collection centers (Which includes PHC, RH, DH, SSH, RRH, WH & MH) and 52 medical imaging centers in various states and cities across India. In addition to those facilities, sample collection is being done through diagnostic labs from direct walk-in patients. We operate in Government Medical College Hospitals (GMCH) in Kerala. HLL is engaged in the NFDS (National Free Diagnostic Scheme), the projects under NHM in the States of Maharashtra and Assam for providing Free Medical diagnostic services to the patients in the Public Sector. In the State of UP, the NFDS is being

implemented for the FREE-CT scans to the beneficiaries in the State of UP. Through its various ventures, Healthcare Services Division targets market intervention to bring down the cost of various services and products to make them affordable for common man HLL through this division endeavors to strengthen the diagnostic service delivery capability of partner institutions and bring high quality & precise diagnostic services to users at affordable costs.

Through a chain of Healthcare Diagnostic centers, called HINDLABS, HLL offers clinical pathology lab services and Radio diagnostic imaging services. Over a period of short span HINDLABS emerged as one of the key players among the network of diagnostic chains with 283 Diagnostic centers in various states and cities across India. HINDLABS uses state-of-the-art technology to provide the most comprehensive and advanced imaging services. The facilities are designed to comply with the National Accreditation Board for Testing and Calibration Laboratories (NABL) standards.

The Healthcare Services Division (HCS) has numerous projects in the pipeline and intends to explore the possibility of having a wide stratum of medical Imaging and other related healthcare business projects.

1.3. **Business Verticals**

The existing business verticals of HCS division of HLL are:

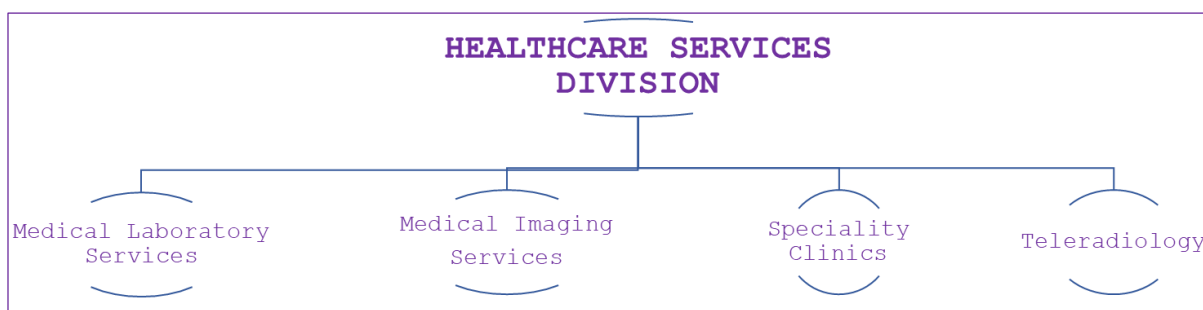


Fig1. Business verticals of HCS

The current spread of the business verticals across the country is detailed in the table below:

Table1: Business vertical spread

Sl. No	Particulars	No. Of Centers
1	Medical Laboratories	225
2	Medical Imaging Centers (CT/MRI/USG's)	52
3	Polyclinic / Specialty clinics (Lab, Imaging & Doctor Consultation)	06
4	Teleradiology Services	75

1.4. Presence of Hindlabs Diagnostics in INDIA

Hindlabs is spread across the length and breadth of the country and is still expanding its network even in the far east corners of India. The details are shown in the table below:

Table 2: Hindlabs Network

State	District	Hospital	Service offered
Assam	28 Districts	NHM & DHS	Medical Lab
AP	Mangalagiri	AIIMS	Med. Lab & Imaging
Jharkhand	Deoghar	AIIMS	Med. Lab & Imaging
UP	Gorakhpur	AIIMS	Med. Lab & Imaging
HP	Bilaspur	AIIMS	Med. Lab
Delhi	New Delhi	CGHS Dispensary	Medical Lab
Haryana	Gurugram	MCD Dispensary	Med. Lab & Imaging
Karnataka	Mangalore	Wenlock District Hospital	MRI & CT
	Bangalore	K.C. General Hospital	CT & Med Lab
	Chitradurga	District Hospital	Medical Lab
	Tumkur	District Hospital	Medical Lab
	Davangere	District Hospital	Medical Lab
Kerala	Thrissur	Govt. Medical College	MRI
	Trivandrum		MRI & CT
	Kottayam		MRI
	Alappuzha		MRI
	Kozhikode		MRI & Med Lab
Maharashtra	Nagpur	AIIMS	Med. Lab & Imaging
	Mumbai	CGHS Dispensary	Medical Lab

	35 Districts	NHM & DHS	Medical Lab
Odisha	Burla	VSS Medical College	MRI
	Berhampur	MKCG Medical College	
Tamil Nadu	Ranipet	BHEL Campus	Medical Lab
	Trichy	NIT	Medical Lab
	Chennai	Chennai Int'l Airport	Medical Lab
Uttar Pradesh	40 Districts	NHM & DHS	CT Scan
West Bengal	Kolkata	Kolkata Int'l Airport	Medical Lab
	Darjeeling	District Hospital	MRI
	Uluberia	SDCH	CT Scan

1.4.1 Hindlabs & National Health Mission

HINDLABS currently works in partnership with National Health Mission in the State of Maharashtra, Assam and Uttar Pradesh for the implementation of National Free Diagnostic Scheme for lab and imaging services as detailed below:

1. National Free Diagnostic Scheme - MAHARASHTRA

1	Scope of the Project	Medical Lab- Citizens of Maharashtra
2	Location of the Project	Maharashtra State
3	Processing LABS	134
4	Collection Centers	2792

2. National Free Diagnostic Scheme – ASSAM

1	Scope of the Project	Medical Lab
2	Beneficiaries	Citizens of Assam
3	Location of the Project	28 Districts
4	Processing Labs	27 District Hospitals & 27 DH, 1 CHC and 41 FRUs

3. National Free Diagnostic Scheme - UTTAR PRADESH

1	Scope of the Project	CT Scan
2	Beneficiaries	General Public
3	Location of the Project	Uttar Pradesh State

4	Collection Centers	40 (Category 1 - 28 & Category 2 - 12)
---	--------------------	--

1.4.2 **Hindlabs – Partnering with CGHS DELHI & MUMBAI**

The Hindlabs network in partnership with CGHS is in operation at New Delhi and Mumbai. The New Delhi network provides advanced Laboratory and Imaging services to over four lakhs CGHS beneficiaries in New Delhi. The main lab located at R K Puram has over 15 collection Centers at the CGHS Wellness Centers from where the samples are aggregated and reported within the TAT provided using LIS. The Centre received the prestigious NABL certification in October 2010 and continues to maintain the status. The services provided are Path lab testing, Ultrasound and Doppler studies, Echocardiography, X Ray and ECG. HLL provides door-step collection in select areas across Delhi and now has plans to start the door-step services in its catchment of all the labs. The Mumbai operation also has 15 Collection Centers with the Central Lab at Koliwada as detailed below:

A. CGHS – DELHI

1	Scope of the Project	Medical Lab, X-Ray, USG
2	Beneficiaries	CGHS Beneficiaries
3	Location of the Project (Hub-Lab)	R K Puram, Delhi
4	Main/ Hub Lab	1
5	Collection Centers	15 (RK Puram & 14 Collection Centre)

B. CGHS – MUMBAI

1	Scope of the Project	Medical Lab
2	Beneficiaries	CGHS Beneficiaries
3	Location of the Project (Hub-Lab)	Koliwada CGHS Dispensary
4	Main/ Hub Lab	1
5	Collection Centers	13 (Koliwada & 12 Collection Centre)

1.4.3 HINDLABS – PARTNERING WITH KARNATAKA STATE GOVERNMENT

HLL has set up High-end labs in the District Hospitals of Tumkur, Chitradurga, Davangere and at KC General Hospital, Bangalore with a separate agreement with the Govt of Karnataka. Besides, HLL has also established CT Scan facility at KC General Hospital- Bangalore & MRI and CT scan facility at the Wenlock Hospital- Mangalore as per the agreement with the State of Karnataka as given below:

KCG- Bangalore	DH- Chitradurga	DH- Tumkur	DH- Davangere	DH- Wenlock- Mangalore
Medical Lab, CT Scan & USG	Medical Lab	Medical Lab	Medical Lab	MRI & CT

1.4.4 HINDLABS – PARTNERING WITH KERALA STATE GOVERNMENT

In a unique partnership with the Government of Kerala, the division has set up Hindlabs MRI scan centers at Government Medical College Hospitals at Kottayam, Alappuzha, Thrissur, Calicut and Thiruvananthapuram. The State of the art 1.5 Tesla MRI Scan machines provide advanced scan capabilities. The centers have been providing excellent scan services to patients at affordable charges providing precise diagnoses to the referring physicians. The First MRI unit was established in 2009. The details of the projects are given below:

Medical Coll, Alleppy	Medical Coll, Thrissur	Medical Coll Kottayam	Medical Coll, Calicut	Medical Coll- SAT HOSPITAL
MRI Unit	MRI Unit	MRI Unit	MRI & Lab	MRI & CT

1.4.5 HINDLABS – PARTNERING WITH ODISHA STATE GOVERNMENT

HINDLABS has commenced the MRI center at VIMSAR Medical College Hospital from 29th July 2019 MRI Centre at MKCG Medical College Hospital on 24th March 2017. Both these centers are set up within the hospital premises.

1.4.6 HINDLABS – PARTNERING WITH W. BENGAL STATE GOVERNMENT

HINDLABS commenced the CT center at SD Hospital Uluberia from 28th May 2015 MRI Centre at Old Sardar Hospital at Darjeeling on 30th March 2015. Both these centers are set up within the hospital premises.

1.4.7 HINDLABS – PARTNERING WITH AIIMS

Diagnostic services to its patients from the start of the OPD services. HINDLABS is also providing path – lab and imaging services at AIIMS- Bilaspur, AIIMS- Gorakhpur, AIIMS- Nagpur, AIIMS Deoghar & AIIMS- Mangalagiri.

1.4.8 HINDLABS – PARTNERING WITH NIT TRICHY

This unique partnership with NIT Trichy started in the year April 2017 providing lab services for the inmates of this campus.

1.4.9 HLL CLINIC, TRIVANDRUM

HLL is also operating HLL Clinic and Medical lab in the brand name “HLL Clinic, at TRIDA complex opposite Trivandrum Medical College. HLL clinic provides various diagnostics services like Biochemistry, Hematology, Serology, Clinical Pathology, Microbiology & Special Tests, X-Ray, USG, Fetal Medicine, Cardiology, Neuro lab, Physiotherapy and dental.

1.4.10 HINDLABS & TELE-RADIOLOGY SERVICES

HINDLABS has established a 24-hour Tele-Radiology Center with the availability of quality Radiologists to report the Image diagnosis. Today HINDLABS is one of the largest tele-radiology service providers and HINDLABS Tele-Radiology Center reports over 2500 Patients/day.

With a robust network of radiologists, HINDLABS Tele Radiology service is offering cost-effective reporting solutions to various public and private healthcare organizations in the country. Through a synergy of patient focus, great people, and modern technology, HINDLABS Tele Radiology service provides flexible tailor-made solutions for Hospitals that can support the health institutions to deliver diagnostic reports quickly, reducing a great deal of delay in patient care. HINDLABS Tele Radiology service also provides quality radio diagnostic services to hospitals in rural India and diagnostic Centers across the country.

1.5 NEW EXPECTED BUSINESS

1.5.1 ABDM Project Inclusion

The Ayushman Bharat Digital Mission (ABDM) aims to develop the backbone necessary to support the integrated digital health infrastructure of the country. It will bridge the existing gap amongst different stakeholders of the Healthcare ecosystem through digital highways.

1.5.2 **ABHIM Project Inclusion**

‘Prime Minister Atmanirbhar Swasth Bharat Yojana’ (PMASBY) scheme which has now been renamed PM – *Ayushman Bharat Health Infrastructure Mission (PM-ABHIM)* was announced on 1st February, 2021, with an outlay of about Rs. 64,180 Cr over six years (till FY 25-26). The Scheme was approved by the Cabinet in its meeting held on 15th September 2021. This scheme is in addition to the National Health Mission.

The measures under the scheme focus on developing capacities of health systems and institutions across the continuum of care at all levels viz. primary, secondary and tertiary and on preparing health systems in responding effectively to the current and future pandemics/disasters.

The Mission targets to build an IT enabled disease surveillance system by developing a network of surveillance laboratories at block, district, regional and national levels, in Metropolitan areas & strengthening health units at the Points of Entry, for effectively detecting, investigating, preventing, and combating Public Health Emergencies and Disease Outbreaks.

1.5.3 **HCS-HIP (Health Infrastructure Provider)**

HLL HMIS will equip HLL with the required tools for providing health related infrastructure to small and big institutions. HLL will provide the required infrastructure and support to enable a health care facility to develop itself into an e-enabled facility and be part of a digitally enabled health ecosystem.

1.5.4 **HCS-STEP (Scaleup Technology Provider)**

HLL intends to provide the required technological support to healthcare facilities that need IT enabled solutions in a progressive mode. STEP program focuses on step-by-step implementation and roll out of IT solutions in a healthcare facility based on the requirement. If a healthcare facility has only an online registration system in place HLL through STEP program will provide the necessary support to scale up the existing system to a better and advanced, IT enabled hospital information system.

1.6 **EXISTING HMIS SOLUTIONS**

HCS currently operates with HMIS solutions based on rate contract model, procurement model, and SAAS model. The details of the currently used HMIS solution are as follows:

Sl. No	Solution used	Nature	Number of locations
1	HMIS	RC	19
2	LIS	SAAS	140
3	LIS	SAAS	70
4	RIS PACS	SAAS	41

Table 3: Existing HMIS solutions

SAAS model solutions are being used in NHM projects whereas other locations are being operated with rate contract software. In institutions like AIIMS the software used is as per instructions from the authorities concerned.

1.7 REQUIRED HMIS SOLUTION

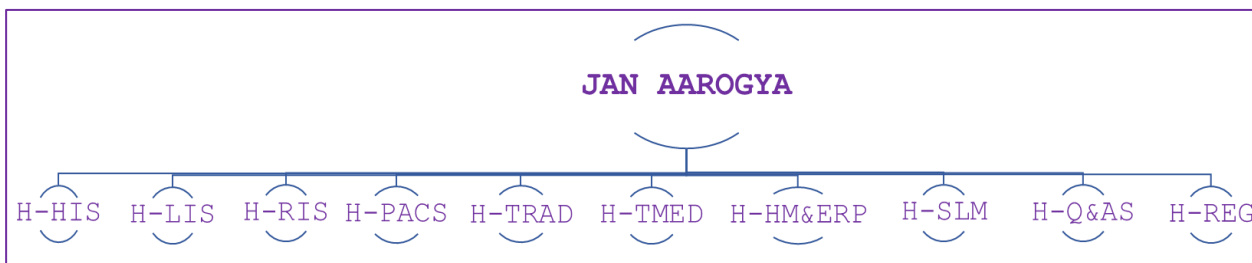
Considering the multifold growth of the division the need for the unification of all the software into a single platform has become essential and of utmost importance. Moreover, with the advent of ABDM implementation in statewide projects, HCS intends to have a HMIS solution of its own.

The new HMIS module will include the following modules.

- 1) Hospital Information System
- 2) Lab Information System
- 3) Radiology Information System
- 4) Picture Archiving and Communication System
- 5) Tele rad services
- 6) Telemedicine/ Teleconsultation
- 7) Hospital Management & ERP system
- 8) Student Lifecycle Management
- 9) Queue & Appointment Scheduling.
- 10) Self/Online Registration system

This required HMIS solution shall become the proprietary product of HLL with all copyright rights vested with HLL to henceforth use the solution without any additional or extra cost whatsoever.

The required HMIS solution shall be provided in the name of “**JAN - AAROGYA**” (or any other name suggested by HLL) and include all the modules under its umbrella as shown below.



The required HMIS solution shall be available in portal as well as mobile and customized to fit the requirements of the organization, and the same shall be documented to be handed over to HLL for future reference.

The required HMIS solution shall be FHIR compatible and have interoperability with other modules and shall be able to integrate with any external modules as and when required.

The required HMIS solution shall be ABDM ready and shall include and follow the guidelines laid down under ABDM requirements. The software provider should also help HLL to integrate the solution with ABDM during the implementation phase.

2. TENDER DETAILS

HLL Lifecare Limited (HLL), a Government of India Enterprise, invites online bids from eligible, competent, and experienced bidders to procure and implement an HMIS Solution within the timeframe indicated in this document which will streamline all activities and processes at HINDLABS across all centers.

HLL plans to address both business and technology needs, through this Solution. HLL expects the successful bidder to adhere to the approach described in this document with possible improvements thereto.

The general scope of work primarily includes, but not limited to following:

- Supply and Installation of HMIS application, related software, and databases.
- Implementation services including verifying and information requirement study, conceptualizing, configuring and customization of the solution satisfying requirements of HLL, compliance of audit recommendations, performance testing, roll out, stabilization, post go-live support etc.
- Planning and executing data conversion and migration including archiving of past data.
- Training of users and core team members includes developing necessary documentation, user manuals, training material, conducting change management workshops etc.
- Necessary guidance and support for the implementation and designing the system architecture, installation and implementation/ commissioning of necessary cloud solution including virtual machine specifications, storage both offline & online and network infrastructures in association with hardware vendor/service partners.
- Migration of all transactional data from existing legacy software solutions to the new solutions.
- All required data fields from the existing databases of multiple software shall be exported in a desired format coordinating with existing service provider center wise.
- Import the data downloaded/exported from existing software and provide provision on the new solution to generate MIS ready anytime across all platforms.
- Providing warranty and AMC services for the solution as a whole.
- The system shall adhere to Ayushman Bharat Digital Mission (ABDM) HMIS requirements.
- ABDM Sandbox Integration: ABDM has developed building blocks and APIs to offer seamless digital healthcare facilities across the country. The required solution shall pass all levels of sandbox environment testing and be ready for seamless integration.
- In case a bidder does not have all the modules as required, a maximum of three technology partners shall be allowed to provide business solutions as per the FRS.
- The bidder shall provide all detailed cloud server specifications for the required system based on the current volume of transactional data managed by all software used by HLL
- The bidder shall propose the upgrade plan for the existing cloud server as and when HLL adds additional projects/centers and installs the proposed solution.
- The bidder shall provide onsite manpower support for the total implementation of each new site.
- It is the responsibility of the bidder to get UAT and Go-Live certificates for each project.
- After Go-Live, the bidder shall provide onsite support for the period of 6 (six) months and offline support for 1 (one) year, i.e., during the warranty period without any additional costing and for the

consecutive period (Total Contract period) support for any new implementation shall be provided FOC along with necessary training to the HLL personnel.

- The total association with the bidder is planned for seven (7) is a maximum of years from the date of release of PO.
- Any new implementations for the period of seven years will be free of cost.
- Any customizations for new implementations on HMIS will be chargeable based on mutual terms of agreement.
- Technology today is evolving at a rapid pace, enabling faster change and progress, causing better user experience. The required solution should be capable of incorporating latest technology updates, patches in terms of speed enhancement, accessibility, efficient data communications, AI & Machine learning, UI/UX and all HL7 & HIPAA health standard and all other updates, etc. free of cost for a period of Seven (7) years from the date of agreement.
- In the case of hybrid models, the incorporation of technology updates shall take minimum downtime at hub and spoke model locations without affecting our operations.
- A ready to configure dashboard (Like Power BI) with default healthcare related modules shall be made available by default.
 - Refer - (mahahindlabs.com, cmfreelabservicesassam.com, upfreetcservices.com)
- The dashboard should be able to accommodate new projects. In case a new project gets added on connecting to the database similar to POWER BI the data should get populated and added onto the dashboard.
- Any requirement/customization suggested on the existing design shall be made by the bidder project wise throughout the warranty and AMC period free of cost.
- Real Time dashboards for all individual projects shall be developed and designed during the implementation period as part of project implementation with default ready to configure dashboard. Any customizations on the default dashboard page shall be a part of UAT and incorporate those changes before Go-Live.
- Unidirectional and Bidirectional interfacing for a minimum number of 25 Nos of Biomedical machines shall be inclusive with the required solution for each project/location free of cost. Over and above, HLL will get the proposal and do the interfacing without hampering the site implementation. In case of shifting of machines within the premises no additional charge shall be charged for interfacing and providing required support.
- Generation of E invoice with QR Code- Interfacing of GST site.

The following will define the technical character of applications:

- All applications will be web-based / web-enabled.
- Application shall work on hybrid models where remote locations software works without internet connection.
- As and when the internet reinstates, the data shall sync with the cloud server.
- The Operating System and browser to run Applications and Database would be as per latest specifications and develop updates based on windows update time-to-time.
- PCs would be MS Windows based.

- PACS Viewer shall work on Windows and Mac environments.

2.1 COMPONENTS OF SCOPE OF WORK:

The scope of work primarily consists of eight elements, viz:

1. Supply, Implementation and Installation of a suitable HMIS Application, Database & Related Software.
2. Advice on appropriate Cloud Hardware & Network infrastructure, installation, and commissioning of Hardware & Networking Infrastructure in association with hardware vendor/service partners.
3. Create requirements for an electronic health record architecture in-line with the requirements of ISO 18308:2011.
4. Create HL7 electronic health records- System functional model 10781:2015.
5. Create Web application security, Mobile Application security & API Security.
6. Create Information Security infrastructure for secure internal and external communications using appropriate technology.
7. Implementation services including test and production instances, data conversion and migration, training and change management, documentation, helpdesk setup, warranty services and AMC thereafter.
8. Post Implementation support: Onsite support for 6 months after the date of GO-Live with approval from HLL official for each location, 1-year warranty service and post AM Cup to 6 years after GO LIVE.

2.2 SECURITY

The solution shall work on secure environment where the architecture should include appropriate firewall services with following features:

- a. Provide an intermediary between an external end-user/system on an external network and the HLL internal systems on the HLL internal networks.
- b. Decouple and map an external user session to an internal session to provide secure access to the desired system.
- c. Allow only certain ports and/or protocols to remain open.
- d. Block internet access to specific sites/systems from cloud server.
- e. Firewalls in cloud data center shall be configured with failover for high availability.

Intrusion Detection and Prevention System (IDPS) including Denial of Service (DOS) detection shall be used to monitor and control any malicious traffic to and from the internet, server, etc.

Authentication and authorization.

- a. The directory service shall be implemented as per HLL's enterprise-wide directory service strategy.
- b. The solution shall be integrated with the directory services for authentication and authorization.
- c. The solution should be able to support appropriate authentication and authorization services with following features:
 - i. Centralized repository of all identification and access control data.
 - ii. Support of Lightweight Directory Access Protocol (LDAP) to allow systems access to the directory.
 - iii. Support single sign-on support.
 - iv. Support access control to individuals or groups of applications.

The solution should be configured with 2-factor authentication for users connecting to the solution from the Internet.

2.3 OWNERSHIP OF DATA

- 2.3.1 HLL shall remain the owner of all kinds of data.
- 2.3.2 HLL shall be the custodian of such data and shall also ensure its security and integrity.
- 2.3.3 The Vendor shall ensure the provision of appropriate and adequate security levels for the protection of such data and other technology resources, which shall come into its custody during the implementation and maintenance of the required solution.
- 2.3.4 The infrastructure for the required solution, at each of the sites, shall be strictly and exclusively used by the Vendor for processing data. Under no circumstances shall the infrastructure be used for any other purpose by the Vendor.
- 2.3.5 HLL/its authorized representative(s) shall conduct periodic/surprise security reviews and audits, to ensure compliance by the Vendor to these control/access provisions.
- 2.3.6 The vendor shall develop and implement an —IT Security Policy “for the required IT solution. This IT Security Policy shall be in line with international guidelines and standards. The Vendor shall also keep itself updated with the latest IT Security Policy of the Government.

2.4 GENERAL GUIDELINES

- The system architecture should be based on open industry standards and protocols.
- The system will be centrally deployed and globally accessed. Access should not be restricted locally.
- Role based access shall be planned to ensure high granularity without compromising on security needs of the application.
- The system shall be designed to be scalable and extensible.

2.5 INFORMATION SECURITY POLICY

Bidders have to prepare information security policy in-line with the requirements of ISO 27001:2005. The Bidder will have to incorporate these policies into the network and application design etc, as appropriate. The information security provisioning may be audited either by HLL/ an external auditor authorized by HLL. The agency is expected to provide the following documents prepared in-line with the requirements of ISO 27001:2005 models:

- Information Security Policy
- Risk Assessment Methodology
- Organization of Information Security Policy (internal and external)
- Information Assets Management Policy.
- Human Resource Security Policy to ensure that employees of HLL have a common understanding of security requirements, vulnerabilities, and threats, and they understand and accept their own security responsibilities.
- Physical and Environmental Security Policy
- Communications and Operations Management Policy
- Access Control Policy
- Information System acquisition, development and maintenance Policy
- Information Security Incident Management Policy
- Business Continuity Policy
- Disaster Recovery Policy

Bidder will implement any modification in the IT Security Policy desired by HLL and also suggest security provisioning based on incidents during operations to plug security loopholes.

2.6 DEFINE POLICIES

- Define Policies regarding the archiving, retention, and destruction of records in consultation with HLL. Customize the procedures for these activities as automatic activity or as alerts/reminders etc.
- Define Policies for backup, disaster recovery, mirror backups etc.
- Define Policies for downtime and server maintenance/updates.
- Define Policies for support related which includes escalation matrix.
- Define Policies for the timeline to new customizations based on each requirement.

2.7 INTEGRATION

Integration services should address requirements of integration for application to application and of data integration in such a manner that the business operations across functional areas are managed to the satisfaction of HLL.

2.8 IMPLEMENTATION PLAN

- The date of award of contract/Purchase order to the successful Bidder will be considered as the start date of implementation.
- The successful bidder should propose suitable alternatives, if any, to the plan in such a manner that overall timelines, as specified in this document, are adhered to. The successful bidder should provide a detailed time schedule for all items as per total scope of work matching with the implementation plan.
- The successful bidder has to submit a detailed project plan (which should be updated regularly) indicating the key phases / activities of the project and the expected timelines for each phase / activity. The successful bidder will further detail the project plan in the early stages of the project and get the same validated from HLL. The project plan should include the following at the minimum:
 - The project broke up into logical phases and subphases.
 - Activities making up the sub-phases and phases.
 - Key milestones and deliverables along with their dates.
 - Start date and end date for each activity.
 - The dependencies among activities.
 - Resources / Consultants to be assigned to each activity.
 - Resources (core team, business team and process owners) expected from HLL for each activity.

In addition to the implementation plan, the successful bidder should formulate and submit:

- Data Conversion Strategy describing the data elements that would need to be converted and the process to be followed for the same.
- Solution Design Strategy including the number of iterations of UT (Unit Test), SIT (System Integration Test) and UAT (User Acceptance Test) expected all test documents to be submitted to HLL for prior approval.
- Risk Management Strategy, identifying, analyzing and evaluating the project risks and the process to be followed in mitigating those risks.
- Training Strategy, describing and implementing proposed approaches in providing training to various categories of users.
- Change management strategy.
- Post implementation support strategy.

2.9 DELIVERABLES

Sl. No	Particulars	Remarks
1	HMIS solution	The solution with the modules as required by HLL.
2	Implementation plan	The implementation plan and methodology should be shared with HLL in detail as to the clients understanding and acceptance.
3	Developments	Any new developments so as to fit in the requirements shall be

		carried out to the client's satisfaction.
4	Validation	Proper validation should be carried out for all the modules so as to meet the requirements of the client. All documents pertaining to the same should be shared with HLL.
5	Data collection and conversion	The templates for data collection should be explained and shared with HLL. The strategy formulated for the conversion of the data to meet the needs of the client should be shared with HLL. No data loss should happen during the process. In case of any data loss/ data corruption during data migration the retrieval of the same will be the responsibility of the bidder.
6	Policy	As stated above in this document
7	UAT	UAT at all stages should be provided to HLL to ensure the operational requirement
8	Training	All necessary training in the software should be provided to the HLL team.
9	Change control	Change control system should be in place to have a track of all the changes made to the software
10	Integration	Integration with third party software should be possible and carried out as per requirement of the client and should be approved by HLL.
11	Disaster recovery	The bidder shall provide the necessary advice and support for disaster recovery setup to HLL
12	Upgrade and Patch application	The bidder shall provide all the upgrades and patches post implementation for a period of seven years free of cost.
13	Security	The bidder shall be responsible for creating a security information policy in line with the healthcare standards requirements

3. **ESSENTIAL PRODUCT STANDARDS**

The required HMIS shall adhere to, but shall not be limited to, the following international healthcare standards:

- a. *American Society for Testing & Materials (ASTM)*- For interfaces to laboratory equipment complying with ASTM
- b. *Digital Imaging & Communication in Medicine (DICOM)*- For images
- c. *Health Level 7 (HL7)*- For messaging & communicating with HL7 compliant systems
- d. *International Statistical Classification of Diseases & Related Health Problems 10th Revision (ICD-10)*- Controls for ICD coding of discharge diagnosis details
- e. *Current Procedural Terminology (CPT)*- Support for coding of services.
- f. *Clinical Physician Order Entry (CPOE)* - support for ease in data entry for physicians, which helps in user adoption as well as ergonomics of the solution.
- g. *Compliance with ethical standards* - HLL attaches topmost priority to adherence to the highest ethical standards in all its transactions and expects the same from all entities it enters into any relationship with. Accordingly, it expects the bidder to observe the highest standard of ethics and integrity during the

bidding process and if successful, during all stages of the project. If a bidder is found to have indulged in any corrupt or fraudulent practice or in any practice which is not in conformity with the highest ethical standards, then the bid will stand rejected. In such a case, HLL may even go to the extent of blacklisting the bidder and barring it from responding to any future enquiries / tenders floated by it.

- h. Clarification on Bidding Documents** - The Bidder is required to carefully examine the bidding documents, terms & conditions, form of agreements, and all other details relating to scope of project given in the Bidding Documents and fully acquaint itself as to all conditions and matters which may in any way affect the work or the cost thereof. Bidder is deemed to have known the scope, nature and magnitude of the work and the requirements of all the necessary resources including materials, labour etc.

NOTE: The required HMIS solution must conform to the above-mentioned standards currently, and the vendor is expected to demonstrate these standards to existing reference customers.

HLL intends to procure/develop an HMIS solution consisting of all the modules from registration to reports. The modules are namely.

- Patient registration.
- Queue Management System (QMS).
- Electronic Health /Medical Records.
- Lab Information System (LIS).
- Management Information System (MIS).
- CMS based Business Intelligence Module.
- Telemedicine platform (Both mobile and Web based Application with external device interfacing).
- Radiology Information System (RIS).
- Picture Archiving and Communication System (PACS).
- AI based Tele reporting.
- Bio-Medical Equipment interfacing with all major equipment through LAN/ RS232.
- HMIS system in place.
- Nursing station.
- Patient help desk.
- Self-registration KIOSK.
- College management software.
- Canteen management system.
- Pharmacy management.
- Document vault.

The details of the aforementioned modules are elaborated in the functional requirement specifications.

3.1 APPLICATION ARCHITECTURE

The required implementation of HMIS is aimed at deriving benefits for the patient, doctor as well as administrator in more ways than one. To site a few benefits –

- **Patient Module:** Computerized medical record, Preventive healthcare, Appointment booking on web, phone and mobile
- **Physician/Appointment Module:** Online access to patient health records, Computerized prescription, Online referrals, Paperless virtual office.
- **Scalability of server space/ Addition of VM's:** New servers can be added dynamically to increase capacity, Load balancing can be used to ensure that the servers are proportionately utilized.
- **IT Administrator Control:** Optimum resource utilization, Computerized scheduling of staff and services, Online reports.
- **Data Security:** SSL – Data Encryption, firewall, Application-level security for user roles and responsibility, OS security and application Security - *Login security, Network security, Operating System security, Application related security, Antivirus measures, Intrusion Detection measures, Intrusion prevention measures.*
- **Availability-** 24 x 7 availability
- **Presentation Layer** – Cross Platform application access, Compatibility with multiple browsers, HTML platform independent, Web Tier - JSP / Servlet, Open-Source Rapid Application Development
- **Application Layer** - Support for all leading application servlets, Easy to upgrade i.e., server level upgrade only

The application should be platform independent on the server side and should allow any operating system from the client side to connect to the application over intranet or internet. Data mining and warehousing support, providing multi-dimensional view of data, MIS and DSS reports is desirable from the application. The HMIS solution will comprise of all the modules that shall be standalone as well as integratable with any existing system in place. The modules shall be provided as a single package or as standalone modules to the required facility.

3.2 INNOVATIVE SOLUTIONS

HLL also looks forward to innovative solutions from the Vendor. These solutions should be such as to make the system easy to handle for the user or inclusion of value-added solutions to the system. Some of the solutions may be given for

- Configuration of mirror backup of central cloud space.
- Generating multiple client bases effortlessly.
- Integration of third-party innovative solutions like QMS, Kiosk etc. with existing solutions.
- Generation of APIs on secured environments to pass data on multiple clients like NHM, CGHS and government dashboards.
- Generation/Use of smart cards for patients based on projects like ABHA card.
- Integration and testing with ABDM sandbox environment.

3.3 BACKUP SOLUTION

The vendor shall propose backup server specification for the Image storage solution. The Backup server should be able to take-over if the Primary Server fails (in case of server crash, disaster/fire, etc.). As and when the Primary Server becomes live again, it should automatically synchronize with the data on the Secondary Server. This is to prevent the end users on all modes LIS, RIS, HIS, Teleradiology, Telemedicine etc. from being stranded without access to patient images at any point of time for any hospital that comes across the HLL software brand. The backup Server should consist of RAID-5 storage.

- The software shall be configured on multiple sites/multi-project mode.
- The software shall be configurable from a single VM multiple instances/location.
- The software shall enable the administrator to configure real-time mirror backup on DR server/external servers.
- Central Short-Term and Long-Term Image Storage as NAS Archive.

3.4 PROJECT DELIVERABLE MILESTONES

- i. Implementation Services & Project initiation.
 - Project Initiation Report & Presentation.
 - Project Management Plan containing the implementation road map in detail.
 - Hardware, Third Party Software and Network Requirement Report.
 - Required Minimum cloud Space Requirements.
- ii. Solution Customization Design.
 - Customization strategy report.
 - Interface document.
 - Between HLL & Client Institution Realtime dashboards & MIS reports through APIs.

- Between HLL Bio medical equipment's and third-party machine providers through HL7.
 - Custom Business report/ MIS details.
- iii. Solution Customization Development.
 - Customization and Interfacing Prototype with necessary documentation (Business Blueprint Maps).
 - Solution Prototype validation feedback documentation.
 - Subsequent rounds of solution prototype validation. Sign-off of the same.
 - QA process document.
- iv. Solution Validation
 - User Acceptance Tests (UAT).
 - System Integration Tests (SIT).
 - Performance Test Results (PTR).
- v. Data Conversion
- vi. Assist in Change Management
 - Change Management Approach Report / Presentation.
 - Conduct Change Management programs on one-on-one individual schedule basis or in groups and at different locations.
- vii. Training
 - Training Requirement Report for HLL Core /Technical team members and end-users.
 - Training plan for prototype validation.
 - HMIS Training for HLL Core & Technical Team Members which includes deep-inside source code level learning.
 - Training on HMIS and other applications, including training to HLL database administrators, system administrators including backup & restoration, system executives for development including reports and maintenance of packages.
 - Training to IT team on administration of cloud servers, managing local servers, real time dashboards, storage, DR servers, SAN and backup systems.
 - Training to HLL end- users on HMIS and other applications including the methodology of bio medical machine interfacing and integration etc.
 - HLL HMIS solution Training and end user manuals along with online documentation.
- viii. Custom Development Report and Documentation.
- ix. Integration.
 - The successful bidder must integrate the HMIS system with certain retained legacy applications or new bolt-on applications like PACS, Teleradiology, Telemedicine and all related modules of HMIS. The detailed list in this tender document is only an indicative list and the complete list will depend on the final solution proposed by the successful bidder and accepted by HLL
- x. Executing Cut-Over from Legacy Applications to HMIS Solution
 - Implementation of Fully configured Production Instance.
 - Cut-over strategy report and presentation to HLL Core Team.
- xi. Post Implementation Support

- The successful bidder will provide post implementation support for six months after each project/hindlabs location Go-Live.
- The successful bidder is expected to transfer knowledge and provide guidelines in setting up and managing an HMIS technical team by HLL, including the processes to be followed in logging request for assistance, assigning requests to specific helpdesk individual, recording resolution and tracking the overall time frame from logging a call to its resolution. The knowledge and guidelines will encompass all aspects of the help desk such as configuration, report writing, database administration, system administration etc.
- xii. Assisting HLL in Installation & Commissioning of Hardware, Hosting and Network.
- xiii. Supply of HMIS Application, Database, Related Software & Tools, User Licenses
- xiv. Disaster Recovery and Back-Up Policy.
- xv. Upgrade & Patch Application Policy.
- xvi. Information Security Policy.

3.5 CENTRALIZED / COMMON MASTER DATA

The solution envisaged by HLL assumes a centralized master data repository to be shared by all the units/centers based on their requirements.

Centralized/Common master data repository means that there would be only one set of master data across the organization capable of maintenance from any or all units with a centralized approval system. The master will have data common to all units as well as data specific to a unit. While managing data, the system must provide adequate control and security for addition, modification, deletion and validity, etc. The values will be assigned to individual units based on their requirements. For instance, there will be one item master across HINDLABS for diagnostic and imaging units.

If a new item has to be defined for a unit, it will first be defined in the HINDLABS item master and then assigned for use to the specific unit only. If another unit also needs to use the same item, then it should be possible to assign the item already defined in the HINDLABS item master to the other unit with different rates. There would be some values related to the item, which would be specific to each unit, for example, supplier master, manufacturer master the unit of measurement, or the account code masters. The centralized item master should be capable of providing for such unit specific requirements as well. Access to the centralized item master should be possible across all units subject to necessary security. In other words, it should be possible to have a distributed team responsible for maintaining the item master. Similarly, the chart of accounts values should be centrally defined and assigned to specific units based on their requirements. It should also be possible to end-date a specific value such that the same cannot be used beyond a given date.

3.6 ACCOUNTING ARCHITECTURE

- The system should be capable of generating consolidated as well as Centre-wise cost/financial accounts/reports with sub-ledger options. This should not, in any way, compromise the operational flexibility, security and data access that each unit currently enjoys.
- Since HLL expects that all units will work on the same instance of the HMIS, consolidation of accounts should be a system driven process with minimal human intervention. It should be possible to maintain multiple instances of accounts for support from the same and single instance of the application.
- Project wise billing module as per the client requirement shall be developed and integrated on web along with real time dashboard.

3.7 ENABLING CENTRALIZED PROCUREMENT

HLL expects the HMIS to facilitate system-driven consolidation of purchase requisitions raised across units into centralized purchase orders. In other words, different units could raise purchase requisition for the same item or on the same vendor which should get consolidated into a single Purchase Order. The HMIS should also enable recording of rate contracts with specific vendors for specific items such as and when purchase orders are raised on those vendors for those items, the rate will default automatically. The vendor shall provide support for Integration with government E Procurement portals as per statutory guidelines.

3.8 DATA ARCHIVAL

In order to meet statutory requirements, archiving and easy retrieval of data is important for HLL. The successful bidder must ensure that the required HMIS Solution provides a user-driven data archiving capability, with support for flexible archiving periods and select tables. The system should also be able to restore archived data for on-line inquiry and reporting as and when required. The successful bidder will also provide a data archiving procedure based on best practices.

3.9 TECHNICAL CORE TEAM MEMBERS

The HLL Technical Core team will comprise a team having expertise for the existing Application portfolio of HLL. This team will bring with them knowledge of existing applications, interfaces, constraints, information requirements etc. The HMIS training needs for HLL Technical Core team members will be in areas such as application configuration, database administration, report customization, hardware administration, network administration, operating system, security management etc.

3.10 SUPPLY LOCATION

Rollout of software packages shall be made on locations, where HLL- HINDLABS diagnostic labs and imaging centers and upcoming hospital projects across India and abroad.

SECTION - 02

1. ELIGIBLE BIDDERS

Bidders are requested to submit the Tender processing fee and EMD online on or before the due date as mentioned in the NIT. The bidders who failed to submit the tender fee and EMD before the submission deadline will be considered as technically non-responsive.

A Bidder should have the following eligibility criteria as of the date of bid submission and should continue to meet these till the award of the contract.

- 1.1. The bidder should have implemented Hospital Management Information System including PACS and Medical Education System software at a hospital (Government medical college/Large Corporate Hospitals that has 750 or more bedded) running satisfactorily for more than 4 years as on date of the submission of bid. A letter of satisfactory performance from the Chief Medical Officer or Administrative Director of the hospital/Govt. Department in which it is running should be enclosed along with the bid.
- 1.2. The software should be ICD – 10, HL – 7, DICOM, ASTM, CPT compliant and the bidder should be able to demonstrate the compliance at a location described above within 15 days after opening of the technical bid.
- 1.3. The bidder should be able to demonstrate the application software for the Hospital Management System at a location where they have implemented these systems covering most of the functionalities within 10 days after opening of the technical bid.
- 1.4. The software offered should be based on platform independent vendor agnostic architecture (like J2EE), enabling it to be interoperable, modular in design, thin client compatible and be able to integrate seamlessly with Laboratory Information System, Radiology Information System including PACS, Teleradiology, Queue Management Systems, Campus Management, Hospital admin & administration, Government/NHM/CGHS Hub and Spoke project management, Doctor Consultation and Telemedicine.
- 1.5. The software should feature integrated data analysis capabilities that can be used for the Decision Support System.
- 1.6. The bidder should specify the qualifications and experience of the domain specialists and experts in the implementation team, the software design and R&D team at the software development center.
- 1.7. The bidder should be in a position to station adequate manpower to complete the entire implementation within the time period mentioned on each project.
- 1.8. Implementing a HMIS is more of a Change Management challenge than installing and implementing a technology-based product. Hence the project manager who will be working on the project should be PMP certified. Please enclose the CVs of proposed Project Managers along with the bid. The bidder should also give details of the hardware, software, networking, application software and change management specialists for the respective areas of installation and implementation of the entire system at any point in time.
- 1.9. The bidder should have implemented a multi-site, multi campus LAN / WAN covering at least 500 +

nodes implemented in 750 or more bedded hospitals described above and it should be running satisfactorily for more than 4 years as on date of the submission of bid.

- 1.10. The bidder should have implemented a server farm with redundant and failover servers in 750 or more bedded hospitals described above and it should be running satisfactorily for more than 2 years as on date of the submission of bid.
- 1.11. A firm/bidder shall submit only one bid in the same bidding process. A Bidder (either as a firm or as an individual or as a partner of a firm) who submits or participates in more than one bid will cause all the proposals in which the Bidder has participated to be disqualified.
- 1.12. Incase the bidder is subcontracting any of the module to a third party. The details of the same should be provided to HLL also. The bidder will be responsible to ensure that implementation/ integration/licensing / support for the respective module.
- 1.13. No Copyright infringement claims for such a module should be raised the third party.
- 1.14. The bidder shall also ensure that the respective module is delivered as a proprietary copyright product of HLL and the terms and condition being same as that of other modules presented by the bidder.
- 1.15. In the event of any dispute, the bidder shall be responsible for the third party/subcontracted party will have no role whatsoever.
- 1.16. Bidders who are eligible as per the Provisions of Public Procurement –Preference to Make in India Order No. P-45021/12/2017PP (BE-II), 2017 (published by Department for Promotion of Industry and Internal Trade) inclusive of the latest amendments are eligible to participate in the tender. A self-declaration as per **Annexure 09** with respect to this order must be submitted.
- 1.17. 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 Competent Authority, as per order no F.No.6/18/2019-PPD dated 23-July-2020 (Rule 144 (xi) of the GFR, 2017 and any amendments issued thereafter) inclusive of the latest amendments issued by Ministry of Finance, GOI at **Annexure 07** of this bidding document. The bidder must comply with all provisions mentioned in this order. A self-declaration as per Annexure 07 with respect to this order must be submitted.
- 1.18. Purchase preference to Micro and Small Enterprises (MSEs): Purchase preference will be given to MSEs as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry.
- 1.19. Bidder/ manufacturer who has been de-recognized/debarred/banned/blacklisted by any other State Government / Central Govt. Organization /State Medical Corporations/ Director Health Services and or convicted by any court of law due to (i) quality failure of the drug(s) supplied (NSQ/ Spurious/ Adulterated/ Misbranded etc.) (ii) Submission of fake or forged documents (iii) Submission of incorrect information / Suppression of vital information & facts can't participate in the tender during the period of de-recognition / debarment/ Banned/blacklisted. The Bidder / manufacturing unit which has been de-recognized/ debarred/banned/blacklisted by State Medical Corporation for any reasons can't participate in the tender during the period of de-recognition/debarment/banned.

2. COST OF BIDDING

- 2.1 The Bidder shall bear all costs associated with the preparation and submission of its bid, and “the Purchaser”, will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.
- 2.2 Tender documents may be downloaded free of cost from the Government e-procurement portal (URL: <https://etenders.gov.in/eprocure/app>). However, tender document fees, as mentioned in the NIT, are required to be submitted along with the online bid.

3. GETTING INFORMATION FROM WEB PORTAL

- 3.1. All prospective bidders are expected to see all information regarding submission of bid for the Work published in the e-tender website during the period from the date of publication of NIT for the Work and up to the last date and time for submission of bid. Non-observance of information published in the website shall not be entertained as a reason for any claim or dispute regarding a tender at any stage.
- 3.2. All bids shall be submitted online on the Government e-procurement portal only in the relevant envelope(s)/ cover(s), as per the type of tender. No manual submission of bids shall be entertained for the tenders published through Government e-procurement portal under any circumstances.
- 3.3. The Government e-procurement portal shall not allow submission of bids online after the stipulated date & time. The bidder is advised to submit the bids well before the stipulated date & time to avoid any kind of network issues, traffic congestion, etc. In this regard, the department shall not be responsible for any kind of such issues faced by the bidder.

4. BIDDING DOCUMENTS

- **Content of Bidding Documents:** The bidding documents shall consist of the following unless otherwise specified
 - a. Notice Inviting Tender (NIT)
 - b. General Instruction to Bidders
 - c. Instructions to Bidders
 - d. General Conditions of Contract (GCC)
 - e. Special Conditions of Contract (SCC)
 - f. Annexures to Bid
- The Bidder is required to login to the e-procurement portal and download the listed documents from the website as mentioned in NIT. He shall save it in his system and undertake the necessary preparatory work off-line and upload the completed bid at his convenience before the closing date and time of submission.

- The bidder is expected to examine carefully all instructions, Conditions of Contract, Annexures, Terms, Product List in the Bid Document. Failure to comply with the requirements of Bid Document shall be at the Bidder's own risk.

5. CLARIFICATION OF BIDDING DOCUMENTS

- A prospective bidder requiring any clarification of the bidding documents shall contact the office of the Tender Inviting Authority on any working day between 10 AM and 5 PM.
- In case the clarification sought necessitates modification of the bid documents, being unavoidable, the Tender Inviting Authority may affect the required modification and publish them on the website through corrigendum.
- To assist in the examination, evaluation, and comparison of bids, the tender Inviting Authority may ask the bidder for required clarification on the information submitted with the bid. The request for clarification and the response shall be in writing or by e- mail.

6. AMENDMENT TO BIDDING DOCUMENTS

- Before the deadline for submission of bids, the Tender Inviting Authority may modify the bidding document by issuing addenda.
- Any addendum thus issued shall be a part of the bidding documents which will be published on the e-tender website. The Tender Inviting Authority will not be responsible for prospective bidders not viewing the website in time.
- If the addendum thus published does involve major changes in the scope of work, the Tender Inviting Authority may, at his own discretion, extend the deadline for submission of bids for a suitable period to enable prospective bidders to take reasonable time for bid preparation taking into account the addendum published.

7. PREPARATION OF BIDS

- **Language of the Bid:** All documents relating to the bid shall be in the English language.
- **Documents to be submitted along with the Technical Bid:**

The online bid submitted by the bidder shall comprise the following:

- a) Self-Declaration as per **Annexure 01**
- b) Bid form as per **Annexure 02**
- c) Power of attorney for signatory of bid in Rs 200/- stamp paper duly notarized.
- d) Copy of GST Certificate (self-attested copy)

- e) Copy of Permanent Account Number (Self-attested Copy).
- f) Certificate of incorporation and associated documents like Article of Association and Memorandum of Association/Partnership deed/HUF etc. as applicable. (Self-attested Copy).
- g) Documentary proof attested by Chartered Accountant for establishing the average annual turnover of bidders having a minimum average annual turnover of Rs.5 Crores (Rupees Five Crores only) during the last three years i.e., 2019-20, 2020-2021 and 2021-2022.
- h) **Annexure 03** - Category details of organization, in case of MSME / MSE, If the bidder is a MSME, it shall declare in the bid document the Udyog Aadhar Memorandum Number issued to it under the MSMED Act, 2006. If a MSME bidder do not furnish the UAM Number along with bid documents, such MSME unit will not be eligible for the benefits available under Public Procurement Policy for MSEs Order 2012.”
- i) Duly filled, signed and sealed **Annexure 04** - Indemnity Certificate
- j) **Annexure 05** – Performance Bank Guarantee
- k) **Annexure 06** - Checklist.
- l) **Annexure 07** – Compliance to Rule 144 (XI) of GFR 2017 (Self Declaration)
- m) **Annexure 08** – Quality Cost Based System
- n) **Annexure 09** - Make in India Preference (Self Declaration)
- o) **Annexure 10** - Pre-Contract Integrity Pact
- p) All the documents required as mentioned in **Section – 02. Clause 01- Eligible bidders.**

Note: If any of the above documents are not applicable for eligible bidders then they shall attach a “NOT APPLICABLE” statement mentioning the justification for the same.

All Annexures must be duly signed and sealed while submitting the same.

Bidders shall not make any addition, deletion, or correction in any of the bid documents. If tampering of documents is noticed during tender evaluation, the bid will be rejected, and the bidder will be blacklisted.

8. BID PRICES

- The Bidder shall bid as described in the Bill of Quantities.
- The rates and prices quoted by the bidder shall remain firm during the entire period of the contract.
- If a firm quotes NIL Charges/ consideration, the bid for that item(s) shall be treated as unresponsive and will not be considered.

- Rates shall be offered separately for each item as per the price schedule. Selection of the bidder will be based on the lowest price quoted for each item.

9. CURRENCIES OF BID AND PAYMENT

The currency of bid and payment shall be quoted by the bidder entirely in Indian Rupees. All payments shall be made in Indian Rupees only.

10. SUBMISSION OF BIDS

The Bidder shall submit their bid online only through the Government eProcurement portal (URL: <https://etenders.gov.in/eprocure/app>) as per the procedure laid down for e-submission as detailed in the web site. For e tenders, the bidders shall download the tender documents including the Bill of Quantity (BoQ) file from the portal. The Bidder shall fill up the documents and submit the same online using their Digital Signature Certificate. On successful submission of bids, a system generated receipt can be downloaded by the bidder for future reference. Copies of all certificates and documents shall be uploaded while submitting the tender online.

The tender is invited in **Three Envelope System** from the registered and eligible firms at CPP Portal.

a) **Envelope - I (Tender Fee and EMD):**

Tender fee (Non-refundable) and EMD as per the tender conditions shall be paid separately, thru RTGS/NEFT transfer in the following HLL A/c details:

Name of Bank	:	HDFC BANK
A/c number	:	00630330000563
IFSC Code	:	HDFC0000063
Branch name	:	Vazhuthacaud, Thiruvananthapuram

Documents of the above transactions completed successfully by the bidder shall be uploaded separately while submitting the bids online.

NOTE

- SSI/MSME units interested in availing exemption from payment of Tender Fee and EMD should submit a valid copy of their registration certificate issued by the concerned DIC or NSIC / Udyog Aadhaar.
- If the bidder is an MSME, it shall declare in the bid document the Udyog Aadhar Memorandum Number issued to it under the MSMED Act, 2006.
- If an MSME bidder does not furnish the UAM Number along with bid documents, such MSME unit will not be eligible for the benefits available under Public Procurement Policy for MSEs Order 2012.
- The Party has to provide Performance Security/Security Deposit if Tender is awarded to them.

b) Envelope - II (Technical bid):

Technical Bid should contain duly filled, signed and scanned soft copy documents as mentioned in Instructions to Bid (ITB) - Documents to be submitted along with the Technical Bid.

c) Envelope – III (Financial Bid): The Financial e-Bid through CPP portal:

All rates shall be quoted in the format provided and no other format is acceptable. If the price bid has been given as a standard format with the tender document, then the same is to be downloaded and to be filled out by all the bidders. Bidders are required to download the file, open it and complete the colored (Unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the file is found to be modified by the bidder, the bid will be rejected.

Prices indicated on the Price Schedule shall be entered separately as per attached -:

- (i) HSN Code and GST amount as applicable in the appropriate column of BOQ.
- (ii) The total unit cost in figure and words.
- (iii) Prices shall be quoted in Indian Rupees.
- (iv) If a firm quotes NIL Charges/ consideration, the bid for that item(s) shall be treated as unresponsive and will not be considered.
- (v) In case bidders quoted different GST amount or percentage for the same item, in such case GST amount ascertained/ decided by the purchaser shall be final
- (vi) The need for indication of all such price components by the tenderers, as required in BoQ is for the purpose of comparison of the tenders by the purchaser and will in no way restrict the purchaser's right to award the contract to the selected tenderer on any of the terms offered.
- (vii) Example for illustration purpose

NOTE: -

1. HLL Lifecare Limited reserves the right to verify the credentials submitted by the agency at any stage (before or after the award of the work). If at any stage, any information / documents submitted by the applicant is found to be incorrect / false or have some discrepancy which disqualifies the firm then HLL shall take the following action:
 - a) The agency shall be liable for debarment from tendering in HLL Lifecare Limited, apart from any other appropriate contractual /legal action.
2. On demand of the Tender Inviting Authority, this whole set of certificates and documents shall be sent to the Tender Inviting Authority's office address (as given in the NIT) by registered post/Speed post of India Post in such a way that it shall be delivered to the Tender Inviting Authority before the deadline mentioned.

The Tender Inviting Authority reserves the right to reject any bid, for which the above details are not received before the deadline.

3. The Tender Inviting Authority shall not be responsible for any failure, malfunction or breakdown of the electronic system while downloading or uploading the documents by the Bidder during the e-procurement process.

11. DEADLINE FOR SUBMISSION OF THE BIDS.

- 11.1. Bid shall be received only online on or before the date and time as notified in NIT.
- 11.2. The Tender Inviting Authority, in exceptional circumstances and at its own discretion, may extend the last date for submission of bids, in which case all rights and obligations previously subject to the original date will then be subject to the new date of submission. The Bidder will not be able to submit his bid after expiry of the date and time of submission of bid (server time).

12. MODIFICATION, RESUBMISSION AND WITHDRAWAL OF BIDS

- 12.1. Resubmission or modification of bid by the bidders for any number of times before the date and time of submission is allowed. Resubmission of bid shall require uploading of all documents including price bid afresh.
- 12.2. If the bidder fails to submit his modified bids within the pre-defined time of receipt, the system shall consider only the last bid submitted.
- 12.3. The Bidder can withdraw his/her bid before the date and time of receipt of the bid. The system shall not allow any withdrawal after the date and time of submission.

13. BID OPENING AND EVALUATION

Bids shall be opened on the specified date & time, by the tender inviting authority or his authorized representative in the presence of bidders or their designated representatives who choose to attend.

13.1. EVALUATION FRAMEWORK

The table below represents the evaluation criteria and their respective weightages.

Sl. No	Overall Criteria	Weightage
1	Technical-Commercial Evaluation	70%
2	Price Bid Evaluation	30%

13.2. TECHNICAL EVALUATION

OPENING OF BIDS

Bids received before the deadline of the submission of the bid will be opened on the date and time of opening mentioned in the Bid Data Sheet (BDS). Bidders wishing to be present at the time of such opening may send their duly authorized representative.

The bids shall be opened in the following sequence:

a) ENVELOPE I – TECHNICAL BID

- EMD & Integrity pact duly signed by Bidders.
- Mandatory Requirements (Minimum Eligibility Criteria as per Annexure 06).
- Technical Bid & Commercial Bid (unpriced bid).

b) ENVELOPE II - PRICE BID

Envelope-1 shall be opened on the specified date and time as specified in the BDS for verification of its contents. HLL shall scrutinize the mandatory requirements of only those bidders who submit a valid and acceptable EMD and other information. The bidder should also submit the duly signed unconditional acceptance of the Integrity Pact in this bid itself. HLL will consider the technical bid and Price bids of only those bidders who qualify by meeting the mandatory conditions (in accordance with Annexure 06)

HLL representatives will open the Price Bid (Envelop II) to only those Bidders who qualify in technical & commercial bids. The date, time and place for opening the Price Bids will be communicated to the eligible bidders. The Bidders may send their representatives to attend the opening if they wish.

Withdrawal notices shall be read out at the deadline time of the submission of the Bids, and the envelope of the corresponding bid shall not be opened for evaluation.

HLL representative will open the technical Bid and announce the name, Bid modifications or withdrawals, presence or absence of requisite bid security and such other details. No Bid will be rejected during bid opening, except those which were received late. Such Bids which were received late will be returned to the Bidder unopened.

Request for withdrawal of Bid previously submitted will be read out during the Bid opening and the Bid of the requesting Bidder will not be opened for evaluation and will be returned to the Bidder.

Bids or modifications thereto may be rejected if they are not addressed as prescribed in the Tender Document. Bids may be rejected outright if they are not accompanied by the prescribed EMD. Bids rejected during the bid opening phase will not be considered for further evaluation.

HLL may, at its sole discretion, seek clarification from the bidders to assist in the evaluation, comparison and examination of bids. The request for clarification and the response will be in writing. If the response to the clarification is not received before the expiration of the deadline prescribed in the request, HLL reserves the right to accept/reject such bids.

14. EVALUATION AND COMPARISON OF BIDS

14.1. EVALUATION OF TECHNICAL BID

The evaluation committee, appointed by the HLL as a whole, evaluates the proposals on the basis of their responsiveness. Technical Evaluation will assess the following parameters and parameter wise marks are as detailed below:

Sl. No.	Parameters	Maximum Marks
1	Functionality (NIT Response)	20
2	OEM credentials & Customer reference	10
3	Product Roadmap for the next seven years	5
4	Product support & service level	5
5	Demonstration & presentation	10
6	Implementation partner's experience (no of implementations in India)/ team strength on the product quoted	10
7	Implementation partner's experience on all modules in scope in this project	10
8	Implementation partner's experience in similar companies and in PSUs	10
9	ABDM readiness	10
10	Dashboard integration	10
Total Technical Score		100

Each bid will be scrutinized and evaluated against the above parameters and the total marks scored will be the respective technical score.

$$St = 100 \times T/Tm$$

Where St is the technical score, Tm is the highest marks scored and T is the marks obtained by the proposal under consideration

14.2. EVALUATION OF PRICE BID

The Financial Proposals shall be opened publicly in the presence of the representatives who choose to attend. The evaluation committee will determine whether the Financial Proposals are complete (i.e., whether all items of the corresponding Technical Proposals and as per price schedule have been costed). The bidders, who confirm all the commercial conditions and submit the required documents as per the tender are considered as commercially acceptable.

Total Cost of Ownership (TCO) will be calculated by adding the following elements as listed:

- HMIS Product and Related Software
- Commissioning and Data migration
- AMC
- ATS for Software

The Bid having the Lowest TCO shall be termed as the Lowest Evaluated Bid and will be awarded **30 marks**.

Financial score (Sf) of other bidders will be calculated on the basis of the following formula:

$$\mathbf{Sf = 100 \times Fm/F}$$

Where Sf is the financial score, Fm is the lowest price and F the price of the proposal under consideration

Proposals will be ranked according to their combined technical (St) and financial (Sf) scores using the weights (TP = the weight given to the Technical Proposal; FP = the weight given to the Financial Proposal; TP + FP = 1).

The weights given to the technical and Financial Proposals are:

$$\mathbf{TP= 0.70}$$

$$\mathbf{FP= 0.30}$$

Total score of the bidding party will be determined based on the following formula:

$$\mathbf{S= St*TP\% + Sf*FP\%}.$$

The bidder achieving the highest total score will be considered for placement of order. Illustration of QCBS ranking methodology is given at Annexure-8

14.3. CONFIDENTIALITY

- Information relating to the examination, clarification, evaluation, and comparison of Bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not

officially concerned with such process until the award has been announced in favor of the successful bidder.

- Any effort by a Bidder to influence the Purchaser during processing of bids, evaluation, bid comparison or award decisions shall be treated as Corrupt & Fraudulent Practices and may result in the rejection of the Bidders' bid.

14.4. CLARIFICATION OF BIDS.

- To assist in the examination, evaluation, and comparison of bids, the Tender Inviting Authority may ask the bidder for required clarification on the information submitted with the bid. The request for clarification and the response shall be in writing or by e-mail, but no change in the price or substance of the Bid shall be sought, offered, or permitted.
- No Bidder shall contact the Tender Inviting Authority on any matter relating to the submitted bid from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Tender Inviting Authority, he shall do so in writing.

14.5. EXAMINATION OF BIDS AND DETERMINATION OF RESPONSIVENESS

14.5.1. During the bid opening, the Tender Inviting Authority will determine for each Bid whether it meets the required eligibility as specified in the NIT and the required documents and certificates.

14.5.2. A substantially responsive bid is one which conforms to all the terms, conditions, and requirements of the bidding documents, without material deviation or reservation.

A material deviation or reservation is one: -

- which affects in any substantial way the scope, quality, or performance of the Works.
- which limits in any substantial way, inconsistent with the bidding documents, the Purchaser's rights or the Bidder's obligations under the Contract.

or

- Whose rectification would affect unfairly the competitive position of other Bidders presenting substantially responsive Bids.

14.5.3. If a Bid is not substantially responsive, it may be rejected by the Tender Inviting Authority, and may not subsequently be made responsive by correction or withdrawal of the nonconforming material deviation or reservation.

14.5.4. Non submission of legible or required documents or evidence may render the bid non-responsive.

14.5.5. Bidders can witness the principal activities and view the documents/summary reports for that particular work by logging on to the portal with his DSC from anywhere.

14.5.6. In case only a single bid is received, then the purchaser reserves the right to accept/reject the bid as per prevailing norms of GFR and CPP portal, or to go for re-tender.

14.6. NEGOTIATION ON BIDS

The Tender Inviting Authority reserves the right to negotiate with the lowest evaluated responsive bidder.

15. BID VALIDITY

1. Bids shall remain valid for the period of **180 (One Hundred and Eighty)** days from the date of opening of the technical bid as specified in the NIT. A bid valid for a shorter period shall be rejected by HLL as non-responsive.
2. In exceptional circumstances, prior to expiry of the original bid validity period, the Tendering Authority may request the bidders to extend the period of validity for a specified additional period. The request and the responses thereto shall be made in writing or by email. A bidder may refuse the request without forfeiting its bid security (if applicable). A bidder agreeing to the request will not be required or permitted to modify its bid but will be required to extend the validity of its bid security (if applicable) for the period of the extension.

16. STATUTORY EXEMPTIONS

- MSME - Statutory exemptions as per relevant guidelines shall be applicable for MSE vendors. However, the preferences with respect to MSME shall not be applicable who are only involved the trading of the product under the scope of this tender.
- PPP MII - Preferences for Make in India products / services shall be applicable in line with Government Order No. P-45021/12/2017PP (BE-II), 2017 (published by Department for Promotion of Industry and Internal Trade) inclusive of the latest amendments. Self-declaration to be submitted to claim MAKE IN INDIA preference.

17. BID SECURITY (EMD)

1. The Bidder shall furnish, as part of this Bid, a Bid Security for an amount as detailed in the Notice Inviting Tender (NIT).

2. Each bid must be accompanied by E.M.D. Any Bid not accompanied by an acceptable Bid Security (EMD) shall be rejected as non-responsive.
3. The Bid Security (EMD) of the unsuccessful Bidder shall become refundable as promptly as possible after opening of Price Bid and finalization of the tender.
4. The Bid Security (EMD) of the successful Bidder will be discharged when the Bidder has furnished the required Security Deposit and acceptance of LOI/Work order.
5. In case of MSME suppliers who had availed the EMD exemption as per the applicable exemptions, has to submit the equivalent amount of EMD as Security deposit within 7 days from the date of award / Letter of Intent / Notification of Award.
6. The Bid Security may be forfeited:
 - (a) If a Bidder:
 - Changes its offer/bid during the period of bid validity or during the validity of the contract.
 - Does not accept the correction of errors
 - (b) In the case of the successful Bidder, if the Bidder fails:
 - To sign the Agreement
 - To deliver the material within the stipulated time frame as per PO.
 - To accept the Notification of award/Letter of Indent/ Purchase order and/or submit the security deposit.
 - To acknowledge the Notification of award/Letter of Indent/ Purchase order within 5 days from the date of issue by sending the signed copy of the same.

In such cases the work shall be rearranged at the risk and cost of the selected bidder

7. The Bid Security deposited will not carry any interest.

18. TENDER PROCESSING FEE

- 18.1.** For e-tenders, the mode of remittance of Tender processing Fee shall be the same as detailed for remitting Bid Security (EMD). For e-tenders, Bidders shall remit the Tender fee using the payment options as mentioned in the e-tender.
- 18.2.** Any bid not accompanied by the Tender Fee as notified, shall be rejected as nonresponsive.
- 18.3.** Tender Fee remitted will not be refunded.

19. ALTERATIONS AND ADDITIONS

- The bid shall contain no alterations or additions, except those to comply with instructions, or as necessary to correct errors made by the bidder, in which case such corrections shall be initiated by the person or persons signing the bid.

- The bidder shall not attach any conditions of his own to the Bid. The Bid price must be based on the tender documents. Any bidder who fails to comply with this clause will be disqualified.

20. INDEMNIFICATION CLAUSE

In case of any Adverse Drug Reaction / untoward side effects occurred due to the administration of the product supplied by your organization, the manufacture/ supplier shall be held liable for any legal or any other proceedings initiated by the Government of India / State Government Authorities. The Bidder shall indemnify, defend and hold harmless Government of India and HLL, its Affiliates, officers, directors, employees, agents, and their respective successors and assigns, from and against any and all loss, damage, claim, injury, cost or expenses (including without limitation reasonable attorney's fees), incurred in connection with third Party claims of any kind that arise out of or are attributable to

- (i) Manufacturer's/Bidders breach of any of its warranties, representations, covenants or obligations set forth herein or
- (ii) the negligent act or omission of the Manufacturer /Bidders.
- (iii) any product liability claim arising from the gross negligence or bad faith of, or intentional misconduct or intentional breach of this Contract by bidder or its affiliate. The Bidder has to submit the indemnity certificate duly signed and sealed in the format provided in Annexure 04

21. SECURITY DEPOSIT

- 21.1.** Within 7 days of the receipt of notification of award of empanelment from the purchaser, the successful Bidder(s) shall furnish the security deposit in the form of a Demand Draft or Bank Guarantee.
- 21.2.** The EMD submitted by the successful Bidder(s) shall be converted to Security Deposit and shall be refunded to the Bidder(s) only after the expiry of the contract.
- 21.3.** In case of MSME suppliers who had availed the EMD exemption as per the applicable exemptions, has to submit the equivalent amount of EMD as Security deposit within 7 days from the date of award of empanelment, else the empanelment shall be treated as cancelled. Failure of the successful Bidder(s) to accept the notification of award or submission of security deposit within the time frame shall constitute sufficient grounds for the annulment of the award and forfeiture of the EMD, in which even the purchaser/owner may make the award to the next lowest evaluated Bidder(s) or call for new bids.

22. PERFORMANCE SECURITY

Final acceptance certificates for the respective components of HMIS solution will be issued on completion of respective performance guarantee (warranty) periods. The bidder will provide the following:

- Performance Guarantee (PG) for the HMIS solution as per criteria defined in this document is for the period of One Year for the Implementation Services from Stabilization Acceptance. During the performance guarantee period, the implementation partner shall extend all services required.

- In case of HMIS Product, the Performance Guarantee shall commence from the stabilization acceptance for the period of one year, however ATS may start from the date of installation of HMIS Product.
- Performance guarantee / warranty / technical support for each element of the HMIS Solution, viz.: the HMIS software, hardware and network hardware implementation services for respective items shall be compiled by the bidder to the satisfaction of HLL.
- The bidder will guarantee to HLL the performance of the HMIS solution for a period as stated above. This Performance Guarantee (PG) will be applicable to all components of the solution including HMIS software, hardware and network implementation services.
- The bidder guarantees that, once the User Acceptance and Stabilization Acceptance Certificate have been issued, the “HMIS SOLUTION” represents a complete solution to the HLL’s requirements set forth in the Scope of Work and it conforms to all other aspects of the Contract.

If, for reasons entirely attributable to the Bidder, the “HMIS SOLUTION” does not conform to the Scope of the Work or does not conform to all /any other aspects of the Contract, the Bidder shall at its cost and expense make such changes, modifications, and/or additions to the “HMIS SOLUTION” as may be necessary to confirm to the Scope of Work and meet all functional and performance standards. The Bidder shall notify HLL upon completion of the necessary changes, modifications, and/or additions and shall request the HLL to repeat the Stabilization Acceptance Tests until the “HMIS SOLUTION” achieves Stabilization Acceptance Tests/ the desired results.

If the “HMIS SOLUTION” (or Subsystem[s]) fails to achieve Stabilization Acceptance, due to reasons entirely attributable to the Bidder, then HLL may consider termination of the Contract, and forfeiture of the Bidder performance security in compensation for the extra costs and delays likely to result from this failure without prejudice to other rights of HLL available under the contract.

The Bidder shall furnish a Performance Guarantee in the form of DD issued from any Nationalized Bank in India and having a branch at Thiruvananthapuram, within 15 days from the date of issue of LOA by HLL, for an amount equivalent to 10% of the value of the order, valid for one month beyond the PG period. On satisfactory performance and completion of the order in all respects and duly certified to this effect by the Project Manager, Contract Completion Certificate will be issued, and the Performance Guarantee will be returned to the Bidder. HLL shall not be liable to the Bidder for any matter or thing arising out of or in connection with the Contract or the implantation of the “HMIS Solution” unless the Bidder shall have made a claim in writing in respect thereof before issue of the Contract Completion Certificate.

If Bidder or their employees damage, break, deface the property belonging to HLL or others during the execution of the contract, the same shall be made good by the Bidder at his own expense and in default thereof; the Project Manager may cause the same to be made good by other agencies and recover expenses from the Bidder for which the certificate of the Project Manager shall be final.

Performance Guarantee shall be for the due and faithful performance of the Contract and shall remain binding notwithstanding such variations, alterations or extensions of time as may be made, given, conceded or agreed to between the Bidder and HLL.

Should the extent or the object of the Contract be altered during the execution of the Contract in such a way as to effect an increase or decrease on the Contract Price by more than 10%, the amount in the Performance Guarantee shall be increased or decreased correspondingly.

The EMD submitted by the successful Bidder shall be adjusted against the Performance Guarantee and the remaining PG amount will be collected from subsequent payments (up on request). The Performance Guarantee shall be retained by HLL till the end of the Term as defined in the Contract.

23. FORFEITURE OF SECURITY DEPOSIT

Whenever any claim against the Bidder for the payment of a sum of money arises out of or under the contract, HLL shall be entitled to recover such a sum by en-cashing in part or whole the Performance Guarantee submitted by the Bidder. In the event of the Performance Guarantee being insufficient or if no other security has been taken from the Bidder, then the balance or the total sum recoverable as the case may be, shall be deducted from any sum then due or which at any time thereafter may become due to the Bidder. The Bidder shall pay to HLL on demand any balance remaining due.

In the event of any breach by the Bidder or any loss or damage suffered by HLL which in the opinion of HLL that the loss or damage has arisen due to reasons attributable to Bidder or in the event of the termination of the contract for any such breach, the Performance Guarantee is liable to be forfeited. The decision of forfeiture by HLL shall be final and binding on the Bidder.

24. PAYMENT TERMS

24.1 No Advance payment shall be made.

- a. 60% of the payable amount will be released within a period of 90 days after complete delivery, implementation and GO-LIVE acceptance by HLL in existing labs.
- b. 10% will be released after 365 days from the date of Go LIVE and acceptance by HLL. The bidder can submit Bank Guarantee towards the 20% performance security against which the same shall be released.
- c. After the warranty period for every subsequent year 5% will be released per year till the seventh year of the contract.

24.2 After the submission of Performance Guarantee and its acceptance, the Bid Security will be refunded to the successful bidder.

24.3. The amount shall be paid by HLL in Indian Rupees.

24.4. Acceptance of the payment terms without any qualification shall form part of the technical bid. In case the payment terms are not accepted, the bid is likely to be rejected.

24.5 HLL will make payment to supplier towards the GST amount only after the invoice is uploaded by supplier in GST outward return i.e., GSTR-1 and credit of GST is available (reflected in GSTR-2A) to HLL.

25. DELIVERY/DEMONSTRATION TERMS

The entire product/software solution must be delivered/demonstrated on the production server within **40** days of issue of Notification of Award /Letter of Intent / Purchase order by HLL.

26. Transfer of Ownership

Ownership and the terms of usage of the Software and Materials supplied under the Contract shall be with HLL. The vendor shall grant HLL to use the product with unlimited number of copies and unlimited number of licenses for the total product or with the supported software's such as viewer, data uploaders, APIs etc. to use the software without any additional payment or obligations to enter into a contract for maintenance or support.

27. TAXES AND DUTIES

The Bidder shall bear and pay all taxes, duties, levies, GST and charges assessed on the bidder by all state, or national government authorities, etc. in connection with the Goods and Services supplied under the Contract. Income Tax and Other Taxes as applicable at the time of execution of job or any other government-imposed liabilities would be deducted from each bill submitted by the bidder.

28. IN CASE OF DEFAULT

The purchaser is not bound to accept the L1 offer only and circumstances warranting where L1 shows its disinterest, L2 or higher offer may be considered for acceptance.

29. RISK PURCHASE

If L1 defaults (fails to deliver product/solution on time) then the purchaser reserves the right to hire another competent party and develop the required solution or from market at the risk and cost of supplier and if the purchase happens at a price higher than the ordered rates, the purchaser shall have the right to claim the difference upon whom order was originally placed and supplier will be under obligation to pay the same. The purchaser has the right to forfeit the performance security / Security Deposit in the event of default. In

addition, the purchaser is entitled to recover the business loss suffered by the purchaser consequent to default for supplying the product.

30. FORCE MAJEURE

1. For purposes of this Clause “Force Majeure” means an event beyond the control of the Supplier and not involving the Supplier’s fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
2. If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing within Seven days of the date of such conditions and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

31. CLARIFICATIONS ON BIDS

During the bid evaluation, HLL may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing, and no change in the price or substance of the bid shall be sought, offered, or permitted

32. CONTACTING HLL

- a) From the time of bid opening to the time of Contract award, if any Bidder wishes to contact HLL on any matter related to the bid, he shall do so in writing by sending email to hcstenders@lifecarehll.com.
- b) If a Bidder tries to influence HLL directly or otherwise interfere in the bid evaluation process and the Contract award decision, his bid will be rejected.

33. HLL’S RIGHT TO ACCEPT OR REJECT ANY OR ALL BIDS

- a) The Purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to the award Contract award, without thereby incurring any liability to the affected bidder or bidders.
- b) The purchaser does not bind itself to accept the lowest or any bid and reserves the right to reject any or all bids at any point of time prior to the issuance of the Notice of award/Letter of intent/Purchase order without reason whatsoever.
- c) The purchaser reserves the right to resort to retendering without providing any reasons whatsoever. The purchaser shall not incur any liability on account of such rejection.

- d) The purchaser reserves the right to modify any terms, conditions or specifications for submission of offer and to obtain revised bids from the bidders due to such changes, if any.
- e) Canvassing of any kind will be a disqualification and the purchaser may decide to cancel the bidder from further bidding.
- f) The purchaser reserves the right to accept or reject any bid and 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 ground for the purchaser's action.

34. SETTLEMENT OF DISPUTES

Arbitration shall not be a means of settlement of any dispute or claim arising out of the contract relating to the work. Any disputes or differences arising between the parties with respect to the performance of any part of this agreement or anything connected therewith, etc. shall as far as possible be mutually settled by the process of dialog and negotiation. Any disputes or differences or questions or claims arising under or relating to a concerning or touching this agreement shall be referred for arbitration in accordance with the provisions of the Arbitration and Conciliation Act 1996.

The arbitration proceedings shall be held at Thiruvananthapuram. The award passed by the arbitrator shall be final and binding on the parties hereto. The conduct of such arbitration shall be in English. Subject to arbitration, the Courts at Thiruvananthapuram alone shall have jurisdiction in respect of settlement of any matter arising out or in connection with the contract.

35. GOVERNING LANGUAGE

The contract shall be written in English language. English language version of the Contract shall govern its interpretation. All correspondence and documents pertaining to the Contract which are exchanged by the parties shall be written in the same language.

36. AWARD CRITERIA

The Purchaser will award the contract with the successful bidders whose bid has been determined to be substantially responsive and has been determined as the lowest evaluated bid in the respective price slabs, provided further that the bidder is determined to be qualified to perform the contract satisfactorily.

37. NOTIFICATION OF AWARD

- 01. Prior to the expiration of the period of bid validity, the Purchaser will notify the successful bidder in writing by registered letter or by email, to be confirmed, that its bid has been accepted.

02. The notification of award will constitute the formation of the contract.
03. The notification of award/ Letter of Intent/ Purchase order will constitute the formation of the Contract. The supplier shall give acceptance of the Notification of award/Letter of Intent/ Purchase order within 5 days from the date of issue by sending the signed copy of the same failing which, the purchaser shall have the right to cancel the order. The conditions mentioned in the Notification of award/Rate contract agreement/Letter of Intent/ Purchase order will be mutually binding for both the parties and the bidder and the purchaser shall abide by the same. In case of any default in any of the conditions of the Notification of award/Letter of Intent/ Purchase order, the purchaser reserves the right to invoke Bid Securing clause.
04. The Purchase order (PO) / Notice of award is liable to be cancelled, if the supplier is unable to comply with or violates any of the terms and conditions laid down in the Purchase order/ Notice of Award. Therefore, upon such cancellation of PO/ Notice of award by HLL, the Supplier will be liable to refund the outstanding advance amount forthwith.
05. The successful bidder shall confirm the acceptance of the Notice of award/Purchase order as per the terms & conditions of the tender by signing and returning the duplicate copy of Purchase order (PO)/Notice of award within 5 days from the date of issue of the of purchase order/ Notice of award, failing which HLL shall have the right to reject the purchase order/ Notice of award.

38. TERMINATION

HLL reserves the right to terminate/ cancel the Notification of award/ Letter of Indent/ Purchase order at any time for any reason without any liability on HLL.

39. CORRUPT OR FRAUDULENT PRACTICES

The purchaser requires that the bidders, suppliers and contractors observe the highest standard of ethics during the procurement and execution of such contracts. In pursuit of this policy, the following are defined:

Sl. No.	Term	Meaning
(a)	Corrupt practice	The offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution.
(b)	Fraudulent practice	A misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract.
(c)	Collusive practice	Means a scheme or arrangement between two or more bidders, with or without the knowledge of the purchaser, designed to establish bid prices at artificial, non-competitive levels.

(d)	Coercive practice	Means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract.
-----	-------------------	--

The Purchaser will reject the proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the Contract in question.

40. FLEXIBILITY OF PRICES

The purchaser has the option to re-negotiate with the rate contract holder to bring down the rate contract prices whenever market fluctuations affect the prices abnormally.

41. LICENSE AND PERMITS

The bidder shall acquire in its name all permits, approvals, and/or licenses from all local, state, or national government authorities or public service undertakings that are necessary for the performance of the Contract.

The Supplier shall comply with all laws in force in India. The laws will include all national, provincial, municipal, or other laws that affect the performance of the Contract and are binding upon the bidder. The bidder shall indemnify and hold harmless Purchaser from and against any and all liabilities, damages, claims, fines, penalties, and expenses of whatever nature arising or resulting from the violation of such laws by the bidder or its personnel.

42. INTEGRITY PACT

Pre-Contract Integrity Pact and Independent External Monitor

- The Integrity pact annexed shall be part and parcel of this document and has to be signed by bidder(s) at the pre-tendering stage itself, as a pre bid obligation and should be submitted along with the financial and technical bids. All the bidders are bound to comply with the Integrity Pact clauses. Bids submitted without signing the Integrity Pact will be ab initio rejected without assigning any reason.
- The Integrity pact annexed shall be part and parcel of this document and has to be signed by bidder(s) at the pre-tendering stage itself, as a pre-bid obligation and should be submitted along with the financial and technical bids. All the bidders are bound to comply with the Integrity Pact clauses. Bids submitted without signing the Integrity Pact will be ab initio rejected without assigning any reason.

The email id of the Independent External Monitor for HLL is given below.

Email id: jemhll@lifecarehll.com

43. RESTRICTIONS UNDER RULE 144 (XI) OF GFR 2017 FOR BIDDERS FROM A COUNTRY SHARING LAND BORDER WITH INDIA.

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 Competent Authority, as per order no F.No.6/18/2019-PPD dated 23-July-2020 (Rule 144 (xi) of GFR) inclusive of the latest amendments issued by Ministry of Finance, GOI at Appendix of this bidding document. The bidder must comply with all provisions mentioned in this order. A self-declaration (as per format provided in Annexure 07) with respect to this order must be submitted.

44. PURCHASE PREFERENCE TO MICRO AND SMALL ENTERPRISES (MSE's).

Purchase preference will be given to MSEs as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. However, the preferences with respect to MSME shall not be applicable to those who are only involved in the trading of the product under the scope of this tender.

45. PROVISIONS OF PUBLIC PROCUREMENT (PREFERENCE TO MAKE IN INDIA) ORDER 2017.

Statutory exemptions as per relevant guidelines shall be applicable for MSE vendors. Preferences for Make in India products / services shall be applicable in line with Government Order No. P-45021/12/2017PP (BE-II), 2017 (published by Department for Promotion of Industry and Internal Trade) inclusive of the latest amendments. Self-declaration to be submitted to claim MAKE IN INDIA preference as per Annexure 09.

46. GOODS AND SERVICES TAX (GST)

- 46.1.** If a tenderer asks for Goods and Services Tax to be paid extra, the rate and nature with HSN code of Goods and Services Tax applicable should be correctly shown separately. The Goods and Services Tax will be paid as per the rate at which it is liable to be assessed or has actually been assessed provided the transaction is legally liable to Goods and Services Tax and is payable as per the terms of the contract. If any refund of Tax is received at a later date, the Supplier must return the amount forth-with to the purchaser.
- 46.2.** In case within the delivery period stipulated in the contract, there is an increase in the statutory taxes like GST or fresh imposition of taxes which may be levied in respect of the goods and services specified in the contract, reimbursement of these statutory variation shall be allowed to the extent of actual quantum of taxes paid by the supplier. This benefit, however, cannot be availed by the supplier if the period of delivery is extended due to an unexcused delay by the supplier.
- 46.3.** But nevertheless, the Purchaser shall be entitled to the benefit of any decrease in price on account of reduction in or remission of GST or any other duty or tax or levy or on account of any other grounds. In case of downward revision in taxes/duties, the actual quantum of reduction of taxes/duties must be

reimbursed to the purchaser by the supplier. All such adjustments shall include all reliefs, exemptions, rebates, concessions etc. if any obtained by the supplier.

47. EMPLOYEES OF HLL NOT INDIVIDUALLY LIABLE

No Director or official or employee of HLL shall in any way be personally bound or liable for the acts or obligations of HLL under the contract or answerable for any default or omission in the observance or performance of the acts, matters or things which are herein contained. The Bidder shall not be entitled to any increase on the scheduled rates or any other rights or claims whatsoever by reason of any representation, explanation, statement or alleged understanding, promise or guarantees given or to have been given to him by any person.

48. WORKPLACE/FACILITIES FOR BIDDER'S SITE OFFICE

Suitable workspace in the respective sites/offices may be provided to the Bidder subject to availability, free of charge. However, providing such space and store is for the smooth execution of contract and non-provision of such space does not bind HLL and make HLL liable to the Bidder in any manner except as specifically provided in the contract terms. HLL is not liable for any loss or damage to the Bidder equipment/material as a result of variation in voltage or frequency or interruption in power supply or other loss to the Bidder arising from.

49. RESIDENTIAL ACCOMMODATION

No boarding /lodging will be provided by HLL to the staff of Bidder. The same has to be arranged by the successful Bidder at its own cost at all project implementation sites.

50. TRANSPORTATION

Bidder shall make its own arrangements for movement of human resources and equipment within and outside the sites/units/offices at the various locations covered by the Contract. The quoted amount shall also include all expenses towards travel to various places / destinations in India in connection with completion of work.

51. PENALTY/PERFORMANCE GUARANTEE (WARRANTY) / ANNUAL MAINTENANCE CONTRACT

Penalty: A penalty of 0.35% per week of the total cost of the project will be applicable for any unforeseen delay to the implementation and GO LIVE.

SECTION III

GENERAL CONDITIONS OF CONTRACT (GCC)

1. DEFINITIONS

In this contract the following terms shall be interpreted as indicated:

- A. “The Contract” means the agreement entered into between the Purchaser and the Supplier as recorded in the Contract Form signed by the parties, including all the attachments and appendices thereto and all documents incorporated by reference therein.
- B. “The Contract Price” means the price payable to the Supplier under the Contract for the full and proper performance of its contractual obligations.
- C. “The Goods” means all the products, and/or other materials which the Supplier is required to supply to the Purchaser under the Contract”
- D. “Services” means services ancillary to the supply of the Goods, such as transportation and insurance, and other incidental services, covered under the contract.
- E. “GCC” means the General Conditions of Contract contained in this section.
- F. “SCC” means the Special Conditions of Contract.
- G. “The Purchaser” means the Organization purchasing the Goods, as named in SCC.
- H. “The Supplier” means the individual or firm supplying the Goods under this Contract.
- I. “Day” means calendar day.
- J. “Delivery period” means the period applicable up to completion of supply of goods by the supplier at the required site mentioned in Notification of award/ Letter of Indent/ Purchase order and accepted by the Purchaser.

2. APPLICATION

These General Conditions shall apply to the extent that they are not superseded by provisions in other parts of the Contract.

3. STANDARDS

The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications.

4. USE OF CONTRACT DOCUMENTS AND INFORMATION

- a. The Supplier shall not, without the Purchaser’s prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.
- b. The Supplier shall not, without the Purchaser’s prior written consent, make use of any document or information enumerated in GCC Clause 4.a except for purposes of fulfilling the Contract.

- c. Any document, other than the Contract itself, enumerated in GCC clause 4.a shall remain the property of the Purchaser and shall be returned (in all copies) to the Purchaser on completion of the supplier's performance under the Contract if so, required by the Purchaser.

5. SUBCONTRACTS

The supplier shall notify the Purchaser in writing of all subcontracts awarded under the contract if not already specified in his bid. Such notification, in his original bid or later, shall not relieve the Supplier of any liability or obligation under the contract.

6. CONTRACT AMENDMENTS

Subject to GCC Clauses, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

7. PATENT RIGHTS

- a. The Supplier shall indemnify the Purchaser against all third-party claims of infringement of patent, trademark or industrial design rights arising from use of the Goods or any part thereof in India.
- b. Any product related cases shall be handled and connected expenses therewith shall be borne by the Supplier only.

8. ASSIGNMENT

The Supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the Purchaser's prior written consent.

9. TERMINATION BY DEFAULT

- a. The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, terminate the Contract in whole or part;
 - i. If the Supplier fails to deliver any or all of the goods/services within the time period(s) specified in the Contract, or within any extension thereof granted by the Purchaser, or
 - ii. If the Supplier fails to perform any other obligation(s) under the contract.
- b. In the event the Purchaser terminates the Contract in whole or in part, the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to the Purchaser for any excess costs for such similar

Goods. However, the Supplier shall continue the performance of the Contract till such time.

10. TERMINATION FOR INSOLVENCY

The Purchaser may at any time terminate the Contract by giving written notice to the Supplier, if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Purchaser.

11. APPLICABLE LAW

The Contract shall be interpreted in accordance with the laws of the Union of India.

12. NOTICES

a. Any notice given by one party to the other pursuant to this Contract shall be sent to the other party in writing or by cable, telex or facsimile and confirmed in writing at the other Party's address specified in Special Conditions of Contract.

b. A notice shall be effective when delivered or on the notice's effective date, whichever is later.

13. TAXES AND DUTIES

The supplier shall be entirely responsible for all taxes, duties, license fees, octroi etc., incurred until delivery of the contracted Goods to the Purchaser.

14. DELIVERY AND DOCUMENTS

Delivery of the Goods shall be made by the Supplier in accordance with the terms specified by the Purchaser in the Letter of Indent / Notification of Award / Purchase order. The details of dispatching and/or other documents to be furnished by the Supplier are specified in SCC, if any.

15. LIQUIDATED DAMAGES

If the Supplier fails to deliver any or all of the Goods or perform of services within the time period(s) specified in the Contract, the Purchaser shall without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to 0.5 percent of the delivered price of the delayed Goods or unperformed Services for each week of delay or part thereof until actual delivery or performance, up to a maximum deduction of 10 percent of the delayed Goods or Services contract price. Service tax as applicable will also be recovered in addition to the liquidated damages. However, H.L.L at its sole discretion reserves the right to accept or reject the delivery of materials which are supplied beyond the delivery date mentioned in the purchase order. In the event of H.L.L accepting the delivery of the materials beyond the stipulated delivery date as per the Purchase order, penalty as mentioned above would apply. In the event of H.L.L rejecting the delivery of the materials beyond the stipulated delivery date as per the Purchase order, then the party is liable to repay HLL any advance

amount which was paid by HLL, failing which HLL will have the right to initiate legal proceedings against such party/ successful bidder. Once the maximum is reached, the Purchaser may consider termination of the Contract. If the Supplier fail to comply with specific packing descriptions or instructions, the loss incurred by the purchaser on this account shall be indemnified by the supplier.

16. RESOLUTION OF DISPUTES

- a. The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.
- b. If, after thirty (30) days from the commencement of such informal negotiations, the Purchaser and the Supplier have been unable to resolve amicably a Contract dispute, either party may require that the dispute be referred for resolution to the formal mechanisms specified in the Special Conditions of Contract. These mechanisms may include, but or are not limited to, conciliation mediated by a third Party, adjudication in an agreed national forum, and national arbitration.

17. OTHER TERMS AND CONDITIONS

The Bidder is required to enter into an agreement after submission of Performance Guarantee.

Should HLL at any time require the Bidder to do any work beyond what is provided under this agreement, the Bidder shall undertake to do such additional work for an additional remuneration to be mutually agreed upon.

HLL may make modifications/revisions/changes/deletions in the scope of work from time to time and the same shall be complied with by the Bidder on mutually agreed terms and conditions.

The Bidder has to deploy a specialized and trained team for the successful and timely completion of the Project. It is therefore desirable that the key personnel in the team have the following minimum qualification and work experience.

- **Project Manager:** Minimum Three (3) HMIS implementation full cycle experience which includes at least one Implementation experience in Pharma/medical devices manufacturing industry as project manager.
- **Change Management Lead:** Minimum two (2) project experience in HMIS led Change management.
- **Functional Integration Lead:** Minimum two (2) HMIS implementation full cycle experience on different modules of the offered product suite which includes implementation experience in an integrated healthcare/pharma manufacturing industry.
- **Functional Leads:** Minimum two (2) HMIS implementation full cycle experience on the offered product suite which includes India localization experience in the relevant modules.
- **Technical Leads – Interfaces:** Minimum One (1) HMIS implementation cycle experience for the offered product which includes experience with implementing interfaces to legacy applications.

- **Technical Leads** – Database Management: Minimum two (2) full cycle experience with the same HMIS product suite and localization requirements.

The Bidder shall submit the details of experience as per the format in Form #8.2 and Form # 8.3 should the profile of any personnel be not acceptable to HLL, HLL will require the Bidders to suitably replace such personnel. They are to be assigned to the project on a full-time basis. The key personnel as deployed for the project by the bidder will in no case claim any regular employment in HLL, and their PF, Gratuity and statutory liabilities will be borne by the Bidders. The staffing and reporting hierarchy within the team should be clearly defined and communicated to HLL.

If the Bidder, in the judgment of HLL, has engaged in corrupt or fraudulent practices in competing for or in executing the contract, including but not limited to willful misrepresentation of facts concerning the experience of the proposed team members of the project, then, HLL may, without prejudice to any other rights it may possess under the contract, give a notice to the Bidder stating the nature of the default and requiring the Bidder to remedy the same. If the Bidder fails to remedy or to take steps to remedy the same within fourteen (14) days of its receipt of such notice, then HLL may terminate the contract forthwith by giving a notice of termination to the Bidder.

HLL reserves the right to:

- (1) Have a formal / informal interview of the candidates to ascertain their suitability.
- (2) To ask for replacement of a candidate if he is found to be unsatisfactory in his work during implementation

HOSPITAL MANAGEMENT INFORMATION SYSTEM

SL. No	Requirements	Confirmation	Bidders Comment
		YES/NO (By Bidder)	
1	<u>HMIS (Hospital Management Information System)</u>		
1.1	Functional Requirements		
	The functional scope as described in the document may be increased based on project requirements.		
1.1.1	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) Electronic Medical Records (EMR)- IP/OP:		
	This module is an integrated patient viewer that provides a cross-disciplinary approach where a patient focused view of clinical information resident in the Clinical data Repository is provided. This would constitute the view to the Electronic Medical Record (EMR). The EMR will provide access to information in the form of result data, text documents, scanned documents, images and waveforms from interfaced foreign systems and medical devices, as well as integrated or foreign clinical systems. Foreign data, or pointers to data stored in external systems, will be resident in the EMR.		
	The information will be displayed within tabs and sub-tabs for different types of data groups like clinical summary, history, observations, etc.		
	The EMR will enable the physician access to all other applications relevant to their role through this application. For example, physicians would be able to:		
	- View and update patient demographics		
	- Perform appointment scheduling of patients		
	- View appointment schedule lists		
	- Manage patient lists		
	- Manage problem lists		
	- E-prescription facility with provision to view medicine stock and send prescriptions to different pharmacy outlets. Physicians can also set the priority for the prescription, enter remarks and review dates		

- Facility to view prescriptions during previous visits, nursing assessments, etc., and record/store A to Z information about patient treatment summary with details such as significant vital alerts, drug allergies, patient files, social history, and so on.		
- Schedule the procedures on a future date, enter the remarks and set priority for the tests.		
- Provision to view the list of in-patients, including their statuses such as referred/transferred patient, insured/non-insured, contagious disease, vulnerable, etc.		
- Manage allergy information		
- Managed care plans for a diagnosis and document the care outcomes		
- Manage orders from within the EMR Module		
- Alert for already prescribed medicines, set multiple frequencies for dosage, etc.		
- Provision to issue certificates for MLC cases, medical certificates, reference certificates, etc.		
- View the summary of inpatients such as number of admitted patients, transferred patients, discharged patients and reference patients		
- Provision to view complete patient demographic information, enter tentative discharge date, attach the soft copies of patient files.		
- Provision to raise reference request to different departments and multiple doctors		
- Provision to record vital signs from anesthesia machine (only if the equipment is interfaced) and monitor the signs on a real-time basis		
- Provision to view the OP treatment summary, nurses' assessment summary, previous visits and previous discharge summary		
- Provision to view and enter patient-wise discharge summary, admission details, status of the patient		
-Provision to search patient admission date/doctor-wise/discharge date-wise and preview and print the discharge summary		
- Provision to add details such as diagnosis, clinical summary, present illness, investigation, course in hospital, treatment summary, preoperative course and treatment, post-operative course, prescriptions, advice, surgical details, diet and review details		
- Facility to specify different reasons of death, in case of death entry		

- Send reference requests for consultation, admission, advance booking, etc. Send requests to multiple locations/connected clinics or to different departments.		
- Availability of templates for various purposes such as Investigation templates and provision to create dynamic forms		
- Provision to record data specialty-wise such as gynecology, infertility, etc.		
- Perform results review with ability to interface with LIS, RIS & PACS		
- Enter and view the discharge investigations, discharge prescriptions, discharge summary, etc. Provision to approve the discharge summary		
- View patient bill including settled and outstanding values		
The module will have the following capabilities:		
- Ability to capture SOAP (Subject Objective Assessment & Plan)		
- Ability to capture diagnosis with codes and status		
- Ability to automatically generate and present treatment and discharge summaries		
- Ability to capture outcomes		
- 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		
- Ability to generate, preview and print treatment summaries in OPD and discharge summaries in IPD/A&E settings		
2) 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:		
- Nurses Duty Scheduling.		
- Provision to enter and track the details of the visits, services provided, vital signs of the patient, intake-output entry, cross visit entry, diet changes, drug schedules, etc.		
- Facility to record the bed allocation, bed release, bed shifting, update bed census		

	- Provision to generate reports on procedure status, cancellations, patient service entry, unusual incidents and bed transfers.		
	- Provision to request a patient's chart, enter death and births in the wards.		
	- Provision to manage the laundry issue, returns, call logs and emergency calls.		
	- The system is capable to view a surgery request, schedule surgeries, view reschedule dates, handle theater release requests, request medicines from the pharmacy, check the status of the raised request, take the delivery and handle the returns, handle the procedure requests, check the status of the pending procedures, check lab test requests and handle the lab bill refunds		
	- Provision to view the summary of vital information such as beds occupied, discharge requests, vulnerable patients who need special attention, etc.		
	- Provision to view requests such as discharge, procedure, medicine, surgery, lab summary, etc.		
	- Provision to enter the nursing notes, calculate approximate bill amount, handle store returns, issue to departments.		
	- Patient Assessment & Classification.		
	3) 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.		
	The various services under the Order Management module are given below:		
	<u>Services</u>		
	- Manage Order Entry		
	- Medication Orders		
	- Order Tracking		
	- Results Reporting		
	- Charging		
	4) OT Management		
	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.		

	The various services under the OT Management module are given below:		
	- OT Scheduling- Facility to block/book/cancel theater for surgeries.		
	- Procedure Order sets- Facility to raise requests for medicines and items for theater, accept/deliver/return them.		
	- Documentation - Facility to view daily/weekly/monthly operation theater booking or cancellation.		
	- Facility to create reports about operation theater status and surgery list.		
	- Track the activities in the operation theater, record medicine and inventory consumption, sterilization details, postoperative charts, etc.		
	- Facility to view surgeries doctor-wise, diagnosis-wise, or top 10 for the day, week, or month		
	5) Anesthesia Management System		
	The anesthesia management system will take care of all the anesthesia related activities including Pre-Anesthetic Check-up, Pre-Induction, Induction, Post-Induction and Recovery Stages along with post-surgery order management.		
	The various services under the Anesthesia Management System module are given below:		
	<u>Services</u>		
	- Pre-Anesthetic Check-up		
	- Pre-operation Management		
	- Post-operation Management		
	6) Dietary Management Module		
	The dietary module will assist the hospital kitchen in providing meals to inpatients as per the instructions of the dietician. The module facilitates the dietician to prescribe a diet as instructed by the physician to any given patient. The module also allows the maintenance of meal scheduling, customizing meals as per patient needs and recording of individual meal orders.		
	- Module allows dietician to book, approve, schedule, cancel the diets for the patients		
	- Allows the generation of the diet chart (food description report of the patients), item-wise sales between specific dates, patient-wise sales between a tenure, diet type report, food category-wise report, diet indent reports.		
	- Provision to view the daily/weekly/monthly summary of information such as diet booking status, top 10 diet types, top five diet booking departments and supply time		
1.1.2	Administration Services		

	Administrative Services: The administration services take care of all system critical non-clinical information that has a patient context and ensures that proper and timely care is provided to the patients.		
	1) Patient Admission, Discharge and Transfer (ADT)		
	The patient administration module handles all functions like registrations, admissions, discharges, transfers and patient appointment scheduling for visits, admissions and investigations etc. It permits comprehensive registration for most patients while allowing quick registration for rapid attention in the accidents & emergency (A&E) department. The system is additionally able to handle bed management of all beds within the hospital thereby enabling the reception clerks to locate available beds within a department or location and assign beds during the admission process at the registration counter itself. Although bill payments can also be accepted simultaneously, the Billing functionality is explained in the Patient Billing sub-module.		
	2) Centralized Appointment & Reception Management System		
	- Make/Edit/cancel appointments for any number of doctors of different departments		
	- Mark the status of appointments as confirmed, reserved, standby, blocked, break, etc.		
	- New patient registration with facility to capture patient photo, insurance details, foreigner - information, medico-legal cases, etc.		
	- Block/unblock the slot for doctors' appointment		
	- Facility to view appointments daily/weekly/monthly, the summary of appointments for the day		
	- Facility to search patients and view appointments, details of outpatients, admitted patients, bed status, search employee, hospital holidays etc.		
	- Facility to view general information such as room tariff, package rate, procedure rate, surgery rate, doctor's list, details such as leave etc.		
	- Facility to handle contacts of the surgical suppliers, ambulance providers, police stations, implementation engineers, doctors, etc.		
	<u>Services</u>		
	- Admission		
	- Discharge		
	- Transfer		
	- Pre-admissions & Waitlists		
	- Bed Management		
	- Bed charges		

	3) Kiosk based patient self-registration		
	Patient Self-service Kiosk Application is an interactive touchscreen kiosk software solution that allows the patients/bystanders to initiate or conduct a set of automated activities via kiosk(s) without any assistance from the hospital staff. The system increases the convenience of the patients, allowing them to perform the tasks at their convenience and pace. For hospitals, the implementation of the Patient Self Service Kiosk System will help in reducing the long queues at the counters for patient registration and bill payments, and also result in reducing the time, cost, and resources required to conduct the tasks.		
	4) Master Patient Index		
	The Master Patient Index module manages the records of all patients registered in the hospital through a unique patient identification number (UPIN) and is generally demographic with some clinical and financial details. This centralized reference information is accessible from any patient-related modules via HL7 interfaces by authorized users. Typical locations where this module is to be used are the Receptions for Outpatients / Inpatients / Accident & Emergency, Appointment and Booking Desks and other departments for purposes of patient identification.		
	5) Appointment Scheduling		
	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.		
	All appointment related activities such as new appointments, cancellations, re-scheduling, waitlists, etc. must be possible.		
	The various services under the Appointment Scheduling module are given below:		
	<u>Services</u>		
	- Appointments Management		
	- Patient Tracking		
	6) Outpatient Management		
	- Facility to make the appointments, search for patients, assign consultation room and book revisits		
	- Facility to view doctor-wise appointment lists, mark their status with various parameters		
	- Facility to view summary of pending outpatients, consulted patients, completed outpatients, visited patients, ongoing consultation details, etc.		

	- Facility to handle the outpatient billing including the details such as advance entry, consolidated billing (from all departments), individual billing (from one department), refunds, batch-wise cash entry, petty cash, multiple money collection modes, etc.		
	- Facility to view day-to-day OP credit bills, cash bills, total bills, visit closing, visit re-opening, etc.		
	- Facility to handle package billing list, search revisiting patients, attach the documents/reports patients bring.		
	7) Inpatient Management		
	- This module shall handle the growing workload of inpatient departments, the hospitals can seamlessly manage all the processes in the department, capitalize on greater efficiency and do more		
	- This module shall have option to allocate beds for the patients, streamline the surgical procedures, diligently enter every interaction with patients during the time of admission		
	- Facility to manage all inpatient processes at admission counter and discharge counter		
	- Facility to create inpatient admissions and booking including the details such as personal specifications, nationality, insurance, medical documents available, etc.		
	- Facility to enter the advance payments, generate receipts, manage discounts, monitor outstanding bill, and petty cash in inpatient department		
	- Facility to create discharge entry with details such as pharmacy, procedure and surgery requisitions, any canceled procedures, etc.		
	- Facility to update/recalculate rate charges in procedures and surgery		
	- Facility to generate reports such as date-wise cash statement; IP registrations department wise, patient type-wise, insurance wise; sales reports doctor/department/category-wise; etc.		
	8) Insurance Desk Module		
	- Request approvals, reimbursements, auditing, etc.		
	- Facility to set individual rates and discounts for various insurance companies / TPAs		
	- Collection module provides a comprehensive financial management solution for the complex dealings of hospitals with outside companies such as insurance.		
	- Facility to maintain the records of pending claims and resubmissions, rejected claims		
	- Facility to update claim status, maintain insurance receivables register, maintain the record of resubmitted claims that got rejected.		
	- Collection module provides a comprehensive financial management solution for the complex dealings of hospitals with outside companies such as insurance.		

	- It also addresses critical financial functions within the hospital, such as the counter-wise or day-wise transactions of a user, cash closings during the shift allocation, etc. Collection dramatically increases the efficiency of the hospital's finance department by streamlining and automating transaction processing and reporting functions.		
	- Manage the transactions during shift allocation		
	9) Email & SMS service		
	- HLL will provide the messaging template based on the project requirement.		
	- HLL will register on TRAI and provide credentials/ message templates. A provision shall be made available through API for integration with all necessary modules on application.		
	- The system shall provide facility to send customized bulk emails and SMS during the appointment, confirmation, cancellation, reminders, messages during bill generation such as Thank You SMS, during lab sample collection, test result generation, insurance approvals		
	- E-mail facility for hospital staff and administrators with E-mail attachment feature based on the email client.		
	10) Patient and Hospital Portal		
	Public portal for accessing patient medical lab and imaging reports enabling the patients to access this from anywhere, anytime.		
	This module can be linked to the hospital website and act as a one stop solution for the patients who are visiting the hospital website and book appointments for themselves and their family members, view prescriptions, test results, etc., without the help of a hospital staff.		
	11) Integration with Third Party websites		
	Incase required, the patient report access, appointment module etc. shall be made available to third party sites as per project needs through API integration or any alternate needs.		
1.1.3	Diagnostic Investigation Services		
	Investigation Services: The investigation services take care of all system critical information related to investigations that have a patient context. 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.		
	1) Pathology - Microbiology, Biochemistry, Hematology & Serology		

	<p>The Lab Result module shall have a complete and integrated set of tools to help the hospital manage the laboratory investigations and processes. Automating the core diagnostic processes such as the inpatient and outpatient medical testing, specimen processing, and result entry, increases efficiency and ensures accuracy in the diagnosis. With embedded integration to the doctor's module, Lab Result sends the test results to the physicians as soon as they are processed, quickening the diagnosis and prescription procedures. Significantly, the integrated SMS provision in the module gives alerts to the doctors in case if the patient's specimen shows an alarming range of variables.</p>		
	<p>The Pathology module of the Laboratory Information System module is to be used in the Pathology Department, serving the needs of the Inpatients, Outpatients, Emergency Departments and Operation Theatres. The various services under the Pathology Information System module are given below which shall be made available to the entire hospital HMIS as for easy access.</p>		
	<ul style="list-style-type: none">- Ordering & Collection Lists		
	<ul style="list-style-type: none">- Specimen Registration & work lists		
	<ul style="list-style-type: none">- Results Entry, Verification & Reporting		
	<ul style="list-style-type: none">- Facility to generate monthly/daily sales report, sample collection reports, pending results, test movement details, doctor-wise investigation details, claim requests		
	<ul style="list-style-type: none">- Facility to establish connection with testing equipment and devices without additional costing.		
	<ul style="list-style-type: none">- Facility to calculate item consumption per test		
	<ul style="list-style-type: none">- Facility to run QC		
	<ul style="list-style-type: none">- Facility to integrate electronic signature in the results & generate results in PDF formats and e-mail		
	<ul style="list-style-type: none">- Facility to schedule and cancel the lab tests with information such as total items for tests, emergency requests, high priority requests, VIP/VVIP requests, in-patient/outpatient results, etc.		
	<p>2) Radio-Diagnostic Information System</p>		
	<p>The Radiology system shall 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. It brings all major components of the radiology testing process to a single unit. The module is compatible with all the imaging technologies used by the radiologists and the available machines.</p>		
	<p>Time-based and machine-wise booking of appointments</p>		
	<p>Booking, reschedule and cancellation options</p>		
	<p>Blocking of time slots, marking the slots as free, reserved, break time, confirmed, emergency, arrived, etc.</p>		
	<p>Facility to view the waiting list and completed list.</p>		

Facility to view the summary of appointments such as new patients, confirmed and cancelled.		
Provision to view the requests in different methods such as machine-wise, technology-wise, and top radiologists or orders.		
Provision for result entry, verification, printing and delivery		
Facility to manage the refund request, result cancellation, lab/IP bill refunds, and reports		
Provision to search for bills and check the status of the radiology test		
Provision to view the tests for the week based on various equipment		
The system would interface to the Pharmacy Management and Inventory Control applications to update the consumption details directly.		
The system should provide a facility so that this module will interface with the Picture Archiving & Communications Systems (PACS).		
The system will be able to seamlessly handle inbound and outbound HL7 messages from any system that has similar capabilities.		
The system will be DICOM 3.0 compliant.		
The system should provide facility so that the application is to be web-enabled		
The various services under the Radio-Diagnostic Information System module are given below:		
The system shall enable radiology departments to do reporting through teleradiology reporting systems.		
<u>Services</u>		
- Radio-diagnostic Setup		
- Appointments		
- Investigations		
- Results Reporting		
- Post-investigation		
- Management		
- Film Tracking		
- Charging		
- Queries & Reports		
- Tele reporting using teleradiology PACS with unlimited licensed ZFP 3D Viewer for radiologist access		
3) Blood Bank Management System		
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.		

	The system would interface with the Inventory Control, Patient Billing, Order Management, and Nursing Information System applications to update the consumption details directly.		
	The various services under the Blood Bank Management System module are given below:		
	<u>Services</u>		
	Facility to enter the opening stock of the blood		
	Facility to enter the blood donor details, donor screening and approvals		
	Facility to schedule the screening tests		
	Facility to create the crossmatch worksheet and marking		
	Facilities to record blood transfusions and patient's reactions		
	Facility to manage and view the blood issues, blood bag returns, mark the replacements, expiry		
	Facility to maintain the voluntary donor details		
	Facility for Donor, Blood Stock, Local inventory Management		
	Provision to search patients, blood bags		
	Provision to generate stock report, monthly inputs, and component statistics		
1.1.4	Inventory Control		
	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. All equipment and buildings are in a status of 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.		
	1) Pharmacy Management		
	The Pharmacy Management System will take care of all drugs-related and other disposable items that have a definite expiry date. This Module shall help the hospitals to handle the billing with ease inclusive of insurance tracking and tax modes. It can store the drugs, maintain the record, and track their expiry.		
	<u>Requirements</u>		
	- Handle the billing to the patients with multiple modes of payment (cash/credit card/debit card/UPI)		
	- Integrated barcode system for the prescriptions and track, record and maintain the stock of the drugs, and manage the expiry of the drugs		

-	Provision to set the current stock status, enabling the availability of a list for the physicians to choose from		
-	The system will maintain balances and a transaction history for each medication item including cost and suppliers.		
-	Movements will be input manually and automatically from the sales/purchase order processing systems and transfer requests would automatically update stock balances. 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. 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.		
-	Summarized monthly stock movements would be retained on the system for 3 years and be available for enquiries.		
-	The system would interface with the purchase order processing system so as to produce purchase order recommendations.		
-	A list of available and authorized medications with their suppliers will be maintained.		
-	A list of suppliers/rate contractors will be maintained.		
-	The various services under the Pharmacy Management System module are given below:		
-	Provision to list generic medicines and drug combinations		
-	Availability and update of re-order of levels		
	Services - Demand		
-	Management/Indenting		
-	Drug Dispensing		
-	Drug Receipts		
-	Process Monitoring		
-	Interfacing		
	2) Central /Hospital Sterile Supplies Department (CSSD)		
	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. The CSSD Module provides facilities to enter details of drums, packs and trolleys. Packs can be assembled or broken down into components as required. 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.		

	i) 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		
	ii) The system will be linked to the Patient Billing System to enable automatic charging based on items used		
	The service under the CSSD module is given below:		
	<u>Services</u>		
	- Issue Tray Sets		
	- Receive Tray Sets		
	- Quality Control		
	3) Laundry Department		
	Laundry service is responsible for providing an adequate, clean and constant supply of linen to all users. The basic tasks include sorting, washing, extracting, drying, ironing, folding, mending and delivery. A reliable laundry service is of utmost importance to the hospital. In today's medical care facilities, patients expect linen to be changed daily.		
	An adequate supply of clean linen is sufficient for the comfort and safety of the patient thus becoming essential.		
	The term 'hospital linen' includes all textiles used in the hospital including mattresses, pillows, covers, blankets, bed sheets, towels, screens, curtains, doctor's coats, theatre cloth and tablecloths. 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. So, if possible, the hospital can go for a separate laundry process for OT linen materials alone. The hospital can either purchase washing machine or engage a washer man (dhobi) to manually wash the clothes		
	- The system should be able to maintain a Linen database		
	- 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		
	4) Housekeeping Management		
	- Facility to manage the cleaning requests from various departments and mark their statuses		
	- Facility to enter the cleaning material consumption and damage entries found in the rooms		

	- Facility to generate stock report, duty register, view duty schedules and location status		
	5) Medical Records Department (MRD)		
	Medical Records Department module assists hospitals to enforce a centralized record management for patient file storage, bar coding, retrieving data and printing them in any formats. This module streamlines the processes and automates manual record management activities throughout a hospital's life cycle. In addition to offering a secure single digital storage facility, this module avoids unwanted record duplication and offers valuable insights that are inaccessible in a fragmented environment.		
	- Facility to create, unify and manage the medical records (charts) of the patients including their chart-in and chart-out process; records of issued files; missing charts, etc.		
	- Facility integrate barcodes with chart-in and chart-out process		
	- Facility to mark diagnosis/ICD against visit/admission		
	- Facility to generate chart-in/chart-out reports, missing chart reports, specialty/region/ICD based disease analysis report, date/category-wise reports and manage EMR requests		
	6) Equipment Management System		
	There are two different aspects of this system, machinery and equipment management and planned preventive maintenance.		
	7) Dialysis Management Department		
	- Facility to make appointments for dialysis machine-wise, with details such as the number of sessions required, the name of the consultant handling the dialysis, etc.		
	- Facility to view the summary of appointments, new patients for dialysis, confirmed patients and canceled patients		
	- Facility to generate weekly report of the dialysis happening in the hospital		
	i) Machinery and Equipment Management		
	This system shall serve the purpose of regulation, monitoring the Preventive Maintenance, Break Down and Overhaul works of the Components/Machines and costing thereof. The system envisages maintenance of equipment in a multi-location environment. The Individual Unit History card will be maintained.		
	ii) Planned Preventive Maintenance		
	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.		

	The various services under the Equipment Management System module are given below:		
	- Maintenance Schedules		
	- Project Management		
	- Work Order Maintenance		
	8) Inventory Management		
	Inventory Management primarily deals with the optimization of inventory and the supply chain processes for all non-pharmacy related items. (All assets – IT, Medical equipment and other).		
	The various services under the Inventory Management System module are given below:		
	- Purchase Order Processing		
	- Connect with the main inventory module		
	- Stock Control		
	9) CSSD		
	This module should have the receipt, cleaning, assembly, sterilization, storage and distribution of sterilized materials of the department. This module ensures an efficient, continuous and quality supply of sterilized materials to various departments of the hospital.		
	- Facility to track the movements of various items and the sterilization process of reusable items		
	- Facility to enter the consumptions and returns		
	- Facility to track laundry issue or receipts		
	- Facility to track the issue of kits to patients		
	- Facility to manage the requests from pharmacy for kits		
	10) Hospital Canteen Module		
	This module intended to streamline the operations of canteens, coffee shops and restaurants in hospitals. This shall have the detailed accounts of the food served at the hospital canteens and enables speedy and secure transactions, reducing the waiting time for the visitors.		
	This module shall be a part of HMIS, and inpatient environment facilitates order taking directly from the inpatient rooms		
	Restaurant billing shall interface with the discharge bills of the patients, making it a complete solution that serves the needs of hospital canteens.		
	This shall support Touch screen Kiosk interface		

	Advance Order from Rooms – Orders can be taken in advance based on different sessions (breakfast, lunch, dinner, etc.). This will be added to the bulk production request in the kitchen.		
	Current Order from Rooms – The current order from rooms will be directly passed to the kitchen and KOT will be generated immediately. The bill will be generated on dispatching the item.		
	The summary and total of F&B/canteen bills credited to the respective rooms will be available to the cashier for settling the same at the time of discharge. The total bill can be printed, and payment can be collected then and there itself without any manual calculations.		
1.1.5	Accounting and Billing		
	Accounting and Billing: This module is to be customized as per the requirements of Accounts and billing department of the implementing client hospitals. The common Accounting and billing procedure shall be available in the entire solution.		
	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 plans in order to provide better care on a sustained basis. This module also covers the insurance requirements for private ward patients.		
1.1.6	Human Resource Management		
	The Human Resources Management Department application captures information pertaining to various departments and the various human resources available. It maintains the records of recruitment, training, and severance records across the organization. This application monitors the training details after receiving feedback from the departments; the system would be linked to the various departments to monitor data and details.		
	The various services under the Human Resource Management module are given below:		
	- Duty Roster & Workforce Management		
	- Training and Employee Performance Management		
	- Employee Self-service		
	- Centralized Employee Database		
	- End-to-end training & Development Management		
	- Automated Recruitment Management System		
	- Analytics and Reporting		
	- Payroll and Grievance Redressal Management		
	- Integration with the SAP main attendance management system (If requires).		

	- Holiday, Time Tracking, Attendance and Leave Management		
1.1.7	E-MLC- Electronic ‘Medico Legal Case Sheet’		
	An electronic medical record system to be developed and implemented with the objective of creating a tamper – proof eMLC that would be printed in a format mandated by law thereby satisfying all legal requirements. This system simplifies the work of doctors so that they no longer have to waste time entering demographics of patients because all medical details in eMLC are easy to enter as they are template driven. Images of patients and injuries shall also be incorporated in the e-MLC.		
1.1.8	Electronic Patient Waiting List System & OT Display Information		
	This will simplify the process for admitting a patient or scheduling for routine/priority surgery. The current waiting list shall be viewed, and patients will call for surgery according to their waiting number. Patients are called only by the number allotted in the waiting list. All the relevant information shall be displayed publicly online in a real time manner on the LED TV.		
1.1.9	Electronic Medical and Fitness Certificates		
	This system will be used for creating and printing medical/fitness certificates as compared to the certificates made manually. For accessing this system, the senior resident would be required to login with a unique ID and password provided by Nursing Informatics. After logging in, it will show the name of the doctor issuing the certificate. Patient details will automatically be updated entering the Patient Registration No. Various fields would be made available for filling the certificates like issuing department, diagnosis, number of days of leave required and the EHS No for staff.		
1.1.10	Real Time Dashboard for Each Hospital/Facility to Publicly display patient demographics		
	Following information to be displayed in consultation with hospital administration:		
	i) Number of patients coming to the hospital.		
	ii) Number of patients being admitted and discharged.		
	iii) Total No of patients seen till date at hospital/facility.		
	iv) No of Patients seen today.		
	v) On the statistics page of e-portal, department wise admission and discharges for the previous day as well as patients seen in OPD.		
	vi) Clinical Audit for all departments in the hospital, Karnal evaluating the performance on various clinical and administrative measures.		

	vii) An integrated CRM on Homepage (login required) which displays personalized data for each clinician like patients admitted under him/her, patients scheduled for OPD and departmental data.		
1.1.11	OPD Mobile Application		
	<p>Keeping pace with the tradition of using cutting edge technology for patient care. Implementation of the relevant software with functioning of the tablets for doctors would be required. Application software should be as per the requirement, scalable, integrated, secure, patient centered and interoperable environments to cater the entire functional requirement at OPD. It initiates a high performing healthcare system where all those engaged in the care of patients are linked together in secure and interoperable environments, and where the flow of clinical data directly enable the most comprehensive patient centered, safe, efficient and effective delivery of where and when is its needed most – at the point of care.</p> <p>Salient Features:</p> <p>Appointments at single screen view.</p> <p>Simple Patient search, Patient Appointment / Reminders.</p> <p>Easy capturing of Past History/ Vital Signs/ Clinical Parameters.</p> <p>Patient Medical Records Retrieval</p> <p>Current visit Complaints/Diagnosis entry</p> <p>Lab orders entry</p> <p>Medical advice entry</p> <p>Lab tests review</p> <p>Lab Image / Video/ Document retrieval.</p> <p>Advice and Plans entry.</p> <p>Image Management</p> <p>Teleradiology Image viewer & Reporting</p> <p>Image comparison option</p> <p>Diagnosis entry</p> <p>Prescribing medicine</p> <p>Test results uploading provisions to Lab as Text/Image/Video including PACS</p> <p>OPD visits are now less grueling for the patients due to this amazing software where all is available at one touch.</p>		
1.1.12	Patient Care Mobile Application –iOS & Android - Project wise		
	Book/Cancel appointment in a hospital & its connected clinics/medical centers		
	Mark as arrived on arrival to the hospital		
	Check variations in test results conducted over a period of time		

	Check consultation history & review a doctor facility		
	Access treatment summary of any consultations taken in the past		
	Access the previous prescriptions, Lab results with previous history		
	Provide feedback for the services of the hospital		
	Visit hospital website		
	Contact Emergency services of the hospital		
	Check the locations of hospital and its connected clinics/medical centers		
1.1.13	SMS Triggering System		
	In this system SMS will be sent automatically by the system to the doctor/patient whenever a predefined event triggered for emergency and OPD. Additional SMS can be sent anytime if a need arises by the department. We expect software vendors to configure the HMIS application to generate SMS alerts for 5 different events (e.g., patient admission, lab result receipt etc.) Procurement of SMS gateway is the responsibility of the hospital.		
1.1.14	Electronic Blood Request		
	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. Demographic details of patients will be automatically updated by just entering the Patient Registration No. 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.		
1.1.15	Online Duty Roster		
	This is a biometric system which describes the details of staff's duty. This will be provided with a login id and password to make and change the duties. It will help to keep an accurate track on the punctuality of employees and ensure 100% compliance in biometric attendance. It also gives a report which shows the shift, leaves etc. and calculates the number of people available on the shift. So, the duty roster to be created online which is to be integrated with the biometric attendance system.		
1.1.16	Vehicle and Transport Management		
	Ambulances management		
	Vehicle deployment handling		
	Time management		
	Drivers and employee details		
	Billing calculations		
1.1.17	Public/Customer Feedback Module		
	The module assists the hospital to measure how the services provided surpass patient's expectations. By developing metrics about the satisfaction of the patients visiting, the hospital can manage and improve the quality of the care delivery.		

1.1.18	Back Office MIS		
	- This module enables the hospital administrators to track the revenues, costs, the status of operations, generate summary of daily transactions at the hospital (number of admissions and discharges, percentage of bed occupancy, birth & death rates, pharmacy sales report, number of surgeries performed, purchase and closing of stocks in stores, report of expired and near expiry medicines, etc.). -		
	- Create collection reports at counters and billing sections and calculate the revenue incentives per doctor		
	- Generate reports to support accreditations such as NABH and NABL.		
	- Analyze the patient waiting time or bed occupancy details.		
1.1.19	Finance		
	The Financial module boasts General Accounting, Cost Accounting, Budgetary Control, Project Management, Treasury, Accounts Collections, Accounts Payable and Fixed Assets, which allows it to have a complete accounting and financial management application, integrated with the hospital's back-office system and completely adapted to sector-specific needs.		
	1) General Accounting		
	Analyze the revenue and costs by location, service lines, departments and other criteria		
	Provision for bill matching, TDS marking, online receipts and voucher printing		
	Provision for debtor/creditor grouping		
	Multi-company and multi-hospital.		
	Allows you to work with several fiscal years at once online.		
	Aggregation and consolidation of companies and hospital groups.		
	2) Cost accounting according to cost center		
	3) Tax management		
	4) Budgetary control of income, expenses, investment by cost center and account		
	5) Accounts receivable and accounts payable		
	Implementation of any kind of charge or payment.		
	Management of payment authorization circuits.		
	Partial payments and advances made to providers.		
	Generate aging reports		
	Facility for bookkeeping with online cheque printing		
	Risk control of parameterizable customers, which allows you to define a point in the sales cycle or provision of service from which you wish to establish control.		

	An accounts receivable management assistant which facilitates the automatized sending of payment claims.		
	6) Project Management		
	A budgetary control system and financial tracking of projects.		
	Control at the budgetary level and the structuring of budget allocations.		
	Allows users to record income and expenses derived from medium and long-term investment projects.		
	Direct allocation, differentiating between the level projected and the level applied.		
	Monitoring the degree of execution of the project.		
	Freezing of documents if budgetary entries assigned to each project are surpassed.		
	7) Cash Management		
	Record cash movements and control cash flow.		
	Prepare budgets and integrate with sales journal and purchase journal		
	Processing of cash vouchers (cash withdrawals to be justified).		
	8) Integration with patient billing		
	Allows communication with the billing-to-patients application (insurers, mutual societies, private entities).		
	Integration with the general accounting module for the accounting entries generated from the invoices sent at the patient's/entity's cost.		
	Integration with the accounting module of the value of allocations by cost center, derived from the invoices sent.		
	Integration with the tax module and with the module for receivables, based on the entries corresponding to invoices sent.		
	Integration with the Inventory management system.		
1.2	Technical Requirements		
	In addition to the functional requirement elaborated in the SRS document, any other functionality to be added & customized as per the requirements from client hospital needs to be integrated.		
	The required HMIS should have the following features:		
	WhatsApp & SMS interface		
	Lab equipment interface (All Departments- Biomedical Equipment)		
	Tablet/Mobile (Single App - Roles and responsibilities customized for Admin. Office Staffs, Doctors & Public report access).		

	Offline Registration by using PC and Mobile application. (SMS text shall be converted into data for registration in required cases) when and where internet is unavailable.		
	Multiple level Security		
	Graphical User Interface		
	Online Help & User Manual - <i>Both Text and video Format (Video for Critical Support)</i>		
	Web enabled - <i>Both Web, Stand-alone & Hybrid model Required</i>		
	Voice transcription in PACS		
	The system uptime will be 98% in non-critical areas - The system uptime will be 100% in critical areas - The system will support ICD-10/ICD-9 CM.		
	The system should be able to generate turnaround time (TAT) reports for OPD consultation and lab and radiology result reporting, patient discharge timing and also should generate average length of stay report.		
	The system should facilitate creation of templates for capturing clinical assessment.		
	The system should facilitate creation of requirement specific discharge summary templates.		
	The system should store all data within 5 second of request - <i>Ensure high response rate</i>		
	The system shall adhere to Ayushman Bharat Digital Mission (ABDM) HMIS requirements.		
	The system shall adhere to Ayushman Bharat Digital Mission (ABDM) Sandbox testing enabling framework.		
	The system should complete the process of Registration, Discharge, Admission, OPD billing in not more than 5 seconds.		
	The system shall support NABH, NABL & ICMR requirements		
	The system shall support EMR/EHR guidelines and other guidelines etc. provided by the Ministry of Health and Family Welfare, New Delhi.		
	The application should have online updation of the transaction into the Back-office Finance/Inventory		
	The application should have a highly secure web interface for doctors and radiologists & secure Application should protect the patient data.		
	The application should have the Ability to create workflow (like forward for approval)		

	The System Integrator Information Technology firm shall adhere to all relevant e-governance standards defined by Government of India (GOI) from time to time.		
	<u>Essential Standards</u>		
	The required HMIS shall adhere to, but shall not be limited to, the following international healthcare standards:		
	American Society for Testing & Materials (ASTM) - For interfaces to laboratory equipment complying with ASTM		
	Digital Imaging & Communication in Medicine (DICOM) - For images		
	Health Level 7 (HL7) - For messaging & communicating with HL7 compliant systems		
	Audit Trail – the data once entered cannot be changed without proper permissions. If any changes are made, then full audit trail information related to the date and time of user login and logout, data entered, data modified, data viewed etc. has to be kept keeping track of what changes are made by whom and when. Provision to modify/cancel all transactions (with their transaction details in audit trail) by only authorized officials should also be there.		
	Alerts – Provision to define configurable alerts for every critical event should be available along with capability to send these alerts to the concerned officials on their mobile phones (including SMS) / e-mails should be available. In-built automatic alerts, wherever appropriate, shall be incorporated.		
	Reports – All reports should be available for downloading in Excel and PDF format to authorized users.		
	Validation – Each input field shall be properly validated before the acceptance of input according to the type and range of the input. In-built validation checks for each field should be available to avoid invalid data entry. Enable EQAS		
	Realtime Dashboard - The party shall design and develop a real time Dashboard as per HLL requirement and host on a domain which HLL provides.		
	Easy and customized data backup and retrieval facility.		
	General purpose workflow features such as document management, time office functions, time sheet, tracking and archiving, change priority of works etc.		
	Provision for workflow status monitoring, authentication and security, distributed user administration so that each manager can be responsible for the administration of his or her subordinates.		
	Patient's episode-based record creation along with tracking.		

	Regular onsite training to be provided to respective users of all modules during implementation till handing over of the system to Client.		
	Helpdesk services to be provided. Helpdesk services should include problem resolution to the level of the end user's desk. Application/Solution to be provided for managing Helpdesk.		
	Provide support and enable switching over from existing system to the new system without any data loss or corruption		
	Documentation -Documentation in respect of all sub-modules (general user manuals and admin user manuals) is to be provided after implementation/acceptance of each of the sub-module and implementation of amendments in the sub-module. The manuals should also include instruction manuals, User manuals, Administration manuals detailing all HMIS administrative activities from the point of view of HMIS's Installation procedure, Configuration, Backup and Recovery, Security policy, Access policy etc.		
	Easy and Fast HTML Editing GUI		
	Supports both plain text, HTML messages & Source Code Editing while SMS projection		
	IT Admin module - It is assigned to the IT department of the hospital. This module handles the settings for all other modules in Ellider. Hence, this is the back-end module mandatory for the working of all other modules.		
	- User setting allows the administration staff to create user groups, allocate the access rights to hospital staff, create users and their rights, module rights, query settings, etc.		
	- It has a master list and reports grouping aspects of the hospital.		
2	<u>LIS (Laboratory Information System)</u>		
2.1	<u>General Requirements</u>		
2.1.1	Pre -Bid demonstration of HIS to be arranged by prospective bidders		
2.1.2	Web Reporting – Availability of reports online through the official Website of Hindlabs.		
2.1.3	Capability to send reports by Email from HIS		
2.1.4	Lab reports and bills shall be viewed from the website for 7 days. Reports for 5 years or as per document retention policy of Hindlabs		
2.1.5	Providing connectivity from HIS to website of Hindlabs		
2.1.6	As up gradation of website will be essential, it shall be done free and included in CMC		
2.1.7	Modules in the software		
	1) Patient Registration		

2) Patient sampling		
3) Billing		
i) Cash		
ii) Credit		
iii) Partial Cash-Credit		
iv) Scheme based Cash & credit		
v) Scheme based Partial Cash-credit.		
4) Polyclinics (Listed in detail below)		
5) Medical Records Module		
6) Laboratory Module		
7) Equipment interfacing in required lab equipment.		
8) Compatibility, integration with Third party reference lab's software to which Hindlabs outsources tests. (optional)		
9) System security Features.		
10) Is Alteration of Lab report possible? New report to be released with addendum without deleting the old report, because both will be needed for NABL records.		
11) Indication of barcode generation time date and place, Fasting / PP), etc. Bar coding to be done for all samples coming from collection centers with specific codes.		
12) Printing for billing		
13) Authentication of report with Digital signature of doctor		
14) Facility to generate report with patient data, Report time, etc.		
15) Different templates for result entry		
16) Age Group wise Normal values		
17) Test wise Item consumption Calculation		
18) Procedure group wise result entry and printing.		
19) Automatic emailing facility		
20) Outside Test Indication and Marking in Lab Result Entry.		
21) Formula Calculation in Lab Result.		
22) Electronic Signature feature in Lab Result Module.		
23) Facility for viewing Bill wise detailed Report		
24) Feature to set Normal and Panic values for Tests.		
25) TAT Management Report		
26) Pending Test report.		
27) Outsourced test pending and test detailed report.		
28) Outsourced test report import option.		
29) Camp patients upload option.		
30) QR Code feature needs to be incorporated in Billing and Report.		
31) Bi-directional machine interfacing with software.		

	32) Vacutainer calculation against sample collection.		
	33) Department wise test and test wise patient count report.		
	34) Emergency patient flagging and TAT management.		
	35) Sample rejection and resampling.		
	36) HL7 Interface		
	37) Multi-Level report validation		
	38) Provision to export reports to Pdf.		
2.2	<u>Master Database required for the Following:</u>		
2.2.1	Investigation Master with complete parameter addressed		
2.2.2	Customer Master		
2.2.3	Consultant Master		
2.2.4	Reference Doctor/Marketing Executive Master		
2.2.5	Material Master		
2.2.6	Pharma item Master		
2.2.7	Sample Master		
2.2.8	Test Limits Master		
2.2.9	Health Camp (Bulk Data) Master		
2.2.10	Department Master		
2.2.11	Medical Records Module		
2.2.12	Scheme Master		
2.3.	<u>Patient registration</u>		
2.3.1	Individual Registration to be possible taking into account all details and to give user ID and Password (Preferably Patient's mobile Number).		
2.3.2	Bulk upload of (1) Health package schemes from Institutes & (2) outsourcing Institutions possible at client end		
2.3.3	Registration at Collection Centers shall get reflected at Main Centre		
2.3.4	Bar Code generation at registration which shall be active for 3 years during which traceability of patient is needed		
2.3.5	Registration at any one of the Main Lab/satellite lab/collection Centre shall give access to the other Centers.		
2.3.6	Schemes (with logic) defined as Master data shall be captured at the time of registration.		
2.3.7	Age & contact Number of patients to be made mandatory at Registration.		
2.3.8	Registration information shall support finance aspects and pass it to finance Module reports		
2.3.9	The registered patients while booking for follow-up shall have a dependency on the availability of the original consultant Doctor. For this the doctor's duty schedule and appointment issue shall have a link which shall be updated based on doctor's availability.		

2.3.10	There shall be an option for the patient to choose a Consultant different from the initially registered one if required.		
2.3.11	The patient/patients registered will make the payment and go to the next step. In the case of a health package, individual payment or credit facility to be available.		
2.3.12	Patient Registration shall capture reference Doctor's data (for computing doctor wise business) and consultant data		
2.3.13	Shall accommodate card payment /UPI/wallet and other existing payment methods		
2.3.14	Online booking for registration.		
2.3.15	SMS & E-mail alert facility required when the investigation report is ready.		
2.3.16	Facility to upload investigation report in Hindlabs Website accessible to patients using a user ID & Password		
2.3.17	Facility to download investigation reports through mobile application to patients using user ID & Password in their handheld device.		
2.3.18	Provision for database search with Name, Surname, Card no., Cell no. etc.		
2.4	<u>Routing</u>		
2.4.1	Poly Clinic Consultation		
	1) Consultants Examination & clinical observation recording in the system		
	2) Data entry against a format (fixed Master as well as a text field for examination details		
	3) Patient previous history capture, prescription, suggested any solution for patient.		
	4) Consultant will direct the patient (through system) to the Diagnostic Labs or Imaging Labs		
	5) In case of Institute Health Package, the group in the package shall be scheduled for Appointment & investigations (divided into date wise groups and assigned (By registration counter staff/ Centre- in charge) timewise to doctors on duty in the Clinic.		
	6) Patient will be directed to any one or none/ all of the following		
	i) Sample collection room. The data (parameter list) for testing will be sent through system		
	ii) CT Lab [via PROCEDURE ROOM]		
	iii) MRI Lab [via PROCEDURE ROOM]		
	iv) ECG or TMT room [via PROCEDURE ROOM]		
	v) US scan room		
	vi) X-ray room [via PROCEDURE ROOM]		
	vii) Pharma retail outlet		
	ix) ECHO		

	x) Endoscopy		
2.4.2	With/without external prescription – Direct to Diagnostic Lab		
	1) After Registration, the patient can go directly to any one or all of the Diagnostic Modules. Upon consultation, entry of the required investigations and /or medicines by the consultant shall be possible in the software based on which patient can make payments at the registration counter. The requirements are also to be conveyed to the concerned lab and/or pharma retail outlet through the system tracking the same using bar code of the patient's identity.		
	2) Laboratory (either one or all of Biochemistry Lab/Hematology Lab/ Histopathology/ Immunodiagnostic / Microbiology)		
	3) Data capturing by interfacing (Uni & Bidirectional) with equipment in the case of automated investigations.		
	4) Manual entry of results also to be permitted in non-interfaced equipment.		
	5) Entry in the case of triplicate estimation to be allowed per parameter and the statistical computation to be performed by the system.		
	6) Retest to be allowed only upon approval by second level authorized person and the details to be captured by the system		
	7) Value authenticated by doctor / authorized person only shall be captured in the investigation report output (Result).		
	8) Sub Department required for the capturing of consumption of lab reagents or materials		
	9) UOM conversion factor to be applied wherever required.		
	10) Provision for mentioning Ranges for different age groups/genders as required in Lab report		
	11) Provision for Modification / Retention of ranges after change of reagent		
	12) Provision for Critical values alerts & Absurd value detection.		
	13) Details of hardware/bandwidth/security Requirement and software if any, which needs to be provided by HLL for Installing and running the system at main lab and Collection centers.		
	14) Is the HIS compatible with the latest operating systems?		
	15) Specify whether the software has to be loaded at computers in each location or the connectivity is through the web to the main server.		
	16) Department wise data capturing required		
	17) Equipment interfacing (both unidirectional & Bidirectional) required.		
	18) Test wise reagent consumption with quality and calibration test wise reagent consumption is to be captured.		

	19) At month end unused consumables need to be carried over to next Month.		
	20) CT Scanning Lab		
	21) MRI Lab		
	22) ECG/TMT		
	23) X ray Lab		
	24) The patient will be directed to go & wait for report / given a date of reporting (which is available online also		
2.4.3	Samples from Collection Centre		
	1) The receipt of all samples (of the samples registered at Collection Centre) ensured & system generated bar code against which test assignment, report printing & follow update shall be assigned (shall be made available in e-mail address of patient).		
	2) The routing of samples after routing shall be as mentioned in B (2).		
2.4.4	Satellite labs (located remote)		
	1) Patient registration – Procedure as per 1.0. but from Satellite Lab location all data shall get reflected at Main Lab and respective Investigation reports shall be generated anywhere in the network		
	2) Sampling: Same as B (2)		
	3) Testing and remaining procedures: Same as Main Lab		
	4) Test result Report shall be reflected in all outlets. Check point - the report generation happens only if payment is completed (in Non-credit schemes)		
	5) Financial & Business reports of all transactions required at corporate level & main lab		
2.4.5	Private Hospitals/Labs (Outsourcing Units)		
	1) Registration: as in 1.0.. (Bulk upload also required)		
	2) Sampling: Same as B (2)		
	3) Test Result Reporting: Same as D (3).		
	4) Business report consolidating Hospital or Outsourcing unit wise financial data shall be captured and given as output		
2.4.6	Retail Pharma /Dispensary		
	1) Goods Receipt through system		
	2) Billing needed (either separately or as a joint billing with the remaining departments) as Credit and cash methods and health package schemes.		
	3) Inventory maintenance		
	4) Suppliers return option.		
	5) Sales return option.		

	6) Shall have a facility to track goods nearing expiry or short expiry.		
	7) Capturing of Financial data or transactions required locally &at Corporate.		
	8) Reports for all transactions required.		
	9) Indent of goods needed through software.		
2.4.7	Material Store Module		
	1) Shall have functionality in the main Lab, Satellite Lab, Collection Centers, Procedure room & sample collection room.		
	2) All Laboratories shall have sub-store module		
	3) Machine-wise consumption capturing and Test wise consumption capturing shall be possible.		
	4) In the case of partially consumed re-agents' system shall allow carry over to the next month (Test KITs)		
	5) Shall have a facility to track goods nearing expiry.		
2.4.8	Finance Module		
	Shall cover Main Centre, Satellite Lab, Collection Centre, Outsourcing and Outsourced units and Pharma retail		
2.4.9	Reports:		
	1) Sales register with all taxation details		
	2) Purchase register		
	3) Cash purchase register.		
	4) Registration Register.		
	5) Stock transfer register		
	6) Pending Indents		
	7) Day to day hand over of collection reports		
	8) Shift hand over reports (sales closing and cash handover)		
	9) Stock report		
	10) Stock expiry details		
	11) Discount given reports		
	12) Statutory reports required by the state and central governments		
	13) Report on pending result reporting		
	14) Daily sales report with gross margin generated for the day		
	15) Stock flow statements		
	16) Scheduling of physical verification		
	17) Business reports (Collection Centre wise & Outsourcing & Hospital wise & Satellite lab wise & Consultant wise & Marketing Executive wise & Referring Doctor wise reports required)		
	18) Test wise cost report		
	19) Advance collected (Patient wise/Institution wise)		

	20) Margin Report		
	21) Inventory ageing report		
	22) VAT report		
	23) Open Transaction report		
	24) Business report to capture quantity of business canvassed by various institutes/Marketing person/Consultant Doctor.		
	25) Consultant's payment billing option based on hours of duty or number of patients attended is required.		
	26) Provision of Work list from Collection centers department wise		
	27) Information of Pending Reports and Pending report detail center wise/department wise		
	28) SAP interface for required data needed for decision making process		
	29) Reports of tests- patient wise, date wise etc.		
	30) Calculation of amount payable to Outsourced lab		
	31) All investigation results in the report specific format required.		
3	<u>RIS (Radiology Information System)</u>		
3.1	Schedule Appointment - Convert appointment to Registration		
	- Incase, of HMIS integrated product, patient details required for registration shall fetch to HMIS along with doctor prescription.		
	- Patient registration shall be taken along with the UID on RIS.		
	- In case of Walk-inpatient, the patient details need to be entered as per the following:		
	- Cash, Credit, Cash + Credit, Partial Scheme based payments, Hospital Client based discount /credit-based billing		
	- Patient list management and patient tracking		
	- Access to prior images to enhance patient care		
	- Report fetching to HMIS incase if the PACS is not standalone.		
	- Automated result distribution to referring physicians to save time and increase efficiency		
3.2	RIS to Console Server Interface		
	The system shall interface with console machine automatically and transfer requisite data for console for scanning		
3.3	Radiology Department and PACS workflow management		
	- Open & display all medical images, produced by medical equipment: CT, MRI, US, XA, RX, PET-CT, SPECT-CT etc.		
	- Inhouse radiologist viewer and reporting module		
	- Desktop application for installation on PCs, laptops, and tablets running Windows & MAC systems.		
	- Windows 7/8/8.1/10/11 and Mac OS X 10.9+ or above supported		

- No additional dependencies (.NET, Java, etc.)		
- Lightweight application with 32- and 64-bit versions compatibility.		
- Advanced memory management system that facilitates the concurrent opening of studies that contain thousands of images		
- HIPAA-compliant and FDA 510(k) cleared medical imaging management solutions		
- Document and report viewer		
- Feature-rich diagnostic tools		
- Open ZIP archives (unencrypted/encrypted) with DICOM files		
- Search and download DICOM studies (or selected series) from PACS locations (servers, workstations, cloud, modalities etc.)		
- Accept and display studies pushed from other PACS locations		
- Import DICOM studies from CD/DVD/Blu-ray discs, local and network folders, USB drives and PACS locations		
- Export list of studies to CSV file		
- Export DICOM files in original format and to JPEG/BMP images, MP4/WMV/AVI movies.		
- All Basic Tools which includes Perform fluid zooming, panning, brightness and contrast (window level/window width), Negative mode		
- Fluid zooming, rotating, panning and scrolling in large series		
- Rotate (90 CW, 90 CCW, 180) and Flip (horizontal, vertical) features		
- Apply image filters (sharpen, smooth, edge, emboss)		
- Display dynamic series/sequences (CINE) with option to adjust frames per second		
- Display DICOM overlays (annotations or graphic overlays included in the file)		
- Display DICOM file structure with searchable DICOM tags, their descriptions and values		
- Measurement of area and perimeter of a closed polygon, open polygon length, angle value, Cobb angle value, deviation distance etc.		
- Arrow and pencil tool for annotations		
- Support multi-monitors configuration, including high resolution medical grade monitors		
- Auto Query & Retrieve studies from any DICOM compatible software / server		

	- A complete set of Region-Of-Interests tools are available to measure angles, surfaces, distances, densities, SUV, Cobb angle, volumes etc.		
	- Create DICOM compliant screen captures		
	- 4D support for Cardiac-CT & Cardiac-MR		
	- Image tracking and available on entire HIMS Intranet network		
	- Stores images obtained from RIS imaging devices and any other relevant patient information on the database.		
	- Database and files management		
	- DICOM based automatic order generation		
	- Single-click radiologist's worklist management		
	- Advanced diagnostic image/information routing engine.		
	- Integrated Nuance Dragon Speech Recognition/ Top Voice recognition Software available in market.		
	- Voice-driven report generation via templates		
3.4	Inventory management		
	Centralized inventory control		
	Sharing – Enables distribution of medical images and patient data. Collaboration between physicians is facilitated by enabling access to documents to anyone within the computer network when RIS is integrated with a local software solution, or to anyone with internet access when RIS is integrated with a cloud-based solution such as Post DICOM.		
	Patient Management – Significantly facilitates patient management as processes such as patient registration and scheduling are digitized. The amount of time needed for patient registration and organizing schedules is greatly reduced by eliminating the need for paper-based documentation. Booking appointments is made much simpler and much less time-consuming.		
	Patient Tracking – Keeping track of the patient's treatment through the system is made available. The patient's complete medical history can be accessed, and the patient's information can be checked for any updates throughout the diagnostic process by logging into the system whenever is necessary. As a result, workflow management is greatly improved.		
	Interactive Documents – RIS systems enable the creation of interactive documents which enhances communication between physicians and facilitates diagnosis.		
	Results Entry and Distribution – Results are reported digitally but functions for paper-based exporting are included. Medical reports can be swiftly and easily emailed or faxed. The RIS system can create statistical reports for specific procedures, individual patients, or patient groups.		

	<p>Procedure Billing – The system can store financial records, process electronic payments, and automate billing.</p> <p>Resource Management – The management of materials is facilitated as information on supply requirements is readily accessible and organized for a more efficient way of managing the budget allocated for supply demand.</p>		
3.5	<p>Common Process Flow: Patients should get registered for the test. For our patients the bill amount should be collected, and the Order Number should be generated. For In Patients payments are not necessary during that time. The service amount should be accumulated against the In-Patient Registration number.</p>		
3.6	<p>Project Process flow: Patients with Test Requisition form (TRF) can walk into the Hindlabs Scan center and register themselves and schedule the appointment. Usually there will be Cash, Cash + Credit, Credit based billing followed based on the project/ center.</p>		
	<p>With the Order number the patient goes to the Radiology Department /Scan area and to the particular lab where the test has to be done, where a registration is done for that test which generates a registration number. Registration Number should keep track of the patient's request status. A very few users, who have the authorization for that, should be able to do the cancellation of the test requisition. After the patient gets registered, the patient will proceed to the respective room (facility) to avail the services.</p>		
3.7	<p>Result Entry for hospital type: After taking the radiology test, the in-house radiologist will enter the report of the test. The system shall enable the concerned authority to verify the result before generating the report. However, even before the report is generated by the radiologist, the unreported image should be available for viewing at any terminal by the physician, for rapid patient service. By default, films shall not be provided to the patient, until specifically asked for by the treating physician.</p>		
3.8	<p>Result Entry through teleradiology: After taking the radiology test, all the images will be transferred to the local server through LAN, Once the image receives the same shall upload to the PACS for teleporting. Once a remote radiologist signs off the report, the same will be synched back to the local server and the authorized personnel at the scan center will take printout and provide it to patients along with film.</p>		
4	<p><u>PACS (Picture Archiving and Communication System)</u></p>		

	<p>The Picture Archiving and Communications System (PACS) is intended to set up a film-less system in Hospital Block for performing radiology services within the institution. Anticipated benefits of implementation of the system include significant reduction in the costs associated with film and its processing, handling, and storage, improved operational efficiency and enhanced patient care within the hospital. 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. 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.</p>		
4.1	System and Technical Requirements for PACS		
	The system shall be web-enabled		
	The system shall be able to seamlessly handle inbound and outbound HL7 messages and HIPAA from any system that has similar capabilities		
	The system should store all data within 5 second of request		
	The system should populate and should make the pre-set/pre-formatted reports/data within 5 second of request		
	The system should allow all DICOM digital images to be available for viewing and manipulation within 5 seconds of request		
	PACS for radiology and radiotherapy should be integrated and DICOM enabled		
	PACS images should be 3D accessible through the internet for tele reporting purpose with ZFP Viewer.		
	Unlimited licenses should be provided – we can add the no of users as per the requirement of hospital in future without any financial implication		
	The system should be enabled for teleradiology (PACS server should have static IP)		
	System should be truly web based and it should be compatible with all web-browsers and mobile applications for viewing and tele reporting as well.		
	Any image can be seen anywhere within a hospital through Intranet & Internet.		

	The system uptime will be 100% in critical areas & 98% in non-critical areas		
	Fully integrated RIS and PACS.		
	Easily Deployable with simple web-based and modern interface.		
	Multimodality connectivity, advanced work list, image processing tools - Archiving, Reports.		
	Teleradiology module allowing access of images remotely with all tools using low internet bandwidth.		
	CD /DVD writing support with embedded DICOM viewer - Advanced and Intelligent worklist.		
	Stat reads highlighted and automatically take priority.		
	Search criteria on various parameters like Patient ID, Name, Accession No, Date Hospital Name, AE TITLE, Referring Physicians etc. - Auto refresh and Page size settings.		
	The application should have Streaming technology for facilitating faster viewing of the images over the net (for PACS)		
	Web based image viewer operated directly from the browser.		
	Compressed image support for faster downloads.		
	Prefetch option to download priors automatically reducing waiting time for the radiologists.		
	Ability to load different studies, side by side for comparison.		
	Multiple monitor support allowing the radiologist to review images, Worklist and reports together.		
	PACS Solution should be Truly web based with all features like CD/DVD Writing, Film printing, Image viewer and Reporting module available through browser from any station. No installable software should be required to use these functions from any station.		
	It should be possible to import images from external CDs/DVD directly into the system without any external software/workstation.		
	PACS Solution should support image viewing from handheld devices		
	Report text search engine should be available		
	Should support DICOM MWL integration with all modalities.		
	Roaming profile – user definable settings		
	Should be possible to edit the DICOM information of images		
	It should be possible to create an image library of interesting cases with keywords - It should support scanning of documents and attach as DICOM files - IT dashboard should be available.		

	The system should be able to take voice response while processing diagnostics reports and convert the same into word format.		
	The PACS software should be advanced and technically capable for image capturing of various digital imaging modalities like Digital X-ray (CR or DR), Mammographic images, Angiographic procedure data, Ultrasound, CT Scanners, MRI Scanners, Gamma cameras, SPECT & PET Scanners, etc. In case of non-digital/analog locations conversion of JPEG to DICOM protocols is necessary. Documentation such as prior requests, lab reports, requisition, etc. be digitized and converted to DICOM, so they are available to the Radiologists along with the image reading.		
	All images from the current study as well as any relevant prior examination to be made available to the reading radiologist at the shortest possible time. The DICOM view should provide Advanced features like MPR, 3D reconstruction, volume rendering, etc. and can be integrated with CAD/AI tools.		
5	<u>TELERADIOLOGY</u>		
5.1	AI - Powered Teleradiology Solutions		
	Teleradiology is the transmission of radiological patient images, such as x-rays and cross-sectional scans (CTs, and MRIs), from one location to another for the purposes of sharing studies with other radiologists and physicians.		
	Teleradiology is a very viable and useful telemedicine method today as a radiologist does not need to physically see the patient to give an accurate diagnosis. The relevant scans and basic patient details & history are sufficient for a radiologist to understand a case and give his consultation. This property of the subject inherently allows radiologists to be in remote locations. Given that imaging procedures are growing approximately 15% annually against an increase of only 2% in the radiologist population, Teleradiology is a growth technology.		

	Artificial intelligence (AI) algorithms, particularly deep learning, have demonstrated remarkable progress in image-recognition tasks. Methods ranging from convolutional neural networks to variational autoencoders have found myriad applications in the medical image analysis field, propelling it forward at a rapid pace. Historically, in radiology practice, trained physicians visually assessed medical images for the detection, characterization and monitoring of diseases. AI methods excel at automatically recognizing complex patterns in imaging data and providing quantitative, rather than qualitative, assessments of radiographic characteristics. A seamlessly integrated AI component within the imaging workflow would increase efficiency, reduce errors and achieve objectives with minimal manual input by providing trained radiologists with pre-screened images and identified features.		
5.2	System Specification		
	The Teleradiology software should be advanced and technically capable for image capturing various digital imaging modalities like Digital X-ray (CR or DR), Mammographic data, Angiographic procedure data, Ultrasound, CT Scanners, MRI Scanners, Gamma cameras, SPECT & PET Scanners, etc. which are forwarded to Digital PACS systems. In the case of non-digital / analog locations conversion of JPEG to DICOM protocols is needed. Documentation such as prior requests, lab reports, requisition, etc. be digitized and converted to DICOM, so they are available to the Radiologists along with the image reading. All images from the current study as well as any relevant prior examination to be made available to the reading radiologist at the shortest possible time. The DICOM viewer should provide Advanced features like MPR, 3D/4D image reconstruction, volume rendering, etc. and can be integrated with CAD/AI tools.		

Advanced Teleradiology Viewing and Reporting Capabilities: Teleradiology software should be designed with Advanced Rich Internet Application which can be accessed just on any browser (No client-side installation required). Flexible, HIPAA-compliant report delivery options, including secure Email, FAX, HL-7, and DICOM. Automated in-bound FAX workflow for attachments, Customized reports with facility logos, Automated referring physician report notification as needed, Monthly, Quarterly, or Yearly QA reporting facility. Monthly turnaround time (TAT) reporting facility. Advanced critical finding and stroke protocol workflows. Advanced Artificial Intelligence (AI) throughout the reporting process to increase Radiologist efficiency and accuracy. The Teleradiology software should be FDA approved.		
Security and Disaster management: Teleradiology software should be incorporated with an advanced level of security that falls under the HIPAA complaint framework. Teleradiology software should be enabled on a 128-bit SSL security for the data transmission over the internet / intranet. Teleradiology software should be an FDA certified system. Advanced HIPAA-compliant IT infrastructure which has more than 99.8% uptime with 24/7/365 IT support. Need Advanced Security keys for locking all patient data.		
Teleradiology software should be based on DICOM 3.0 & HL-7 standards and encompass the advanced IHE profiles like WADO (Web Access to DICOM object). Should provide Fast image transfer over the internet for anywhere, anytime diagnostics, should support multi-hospital connectivity		
Platform Features: Advanced, reliable HIPAA compliant IT infrastructure. Rapid study transmission and Report generation. The Platform can be accessed on any browser, no client-side installation needed. Teleradiology software should allow simultaneous access to images from multiple diagnostic and investigation systems		
It should support Filmless diagnosis across multiple locations including remote radiology consultation across the world.		
The required PACS-cum-Teleradiology platform, on the cloud and as specified by the detailed specification that is to follow. The platform, which is to be AI-powered and mobile access enabled, must conform to the following standards: DICOM, HL7, FHIR		
The platform will consist of the following components:		
- Remote DICOM component to integrate with machines		
- DICOM receiver, storage and retrieval component		
- DICOM image viewer component		
- Radiology reporting module		
- Mobile App access component		

5.3	The technical specification of each component / module is further as below:		
	- Remote DICOM component to integrate with machines		
	- Fast error free and transparent compression (>2x) of image data on disk with NKI private, JPEG or JPEG2000 compression.		
	- A database browser and slice viewer integrated in the PACS system with options for: viewing DICOM header, creating BMP files (ideal for slides), sending selected images, printing, database fix tools such as changing patient IDs, deleting and anonymizing studies and series, and splitting and merging series.		
	- Ability to Use drag and drop to load ZIP, DICOM and HL7 files.		
	- A simple query/move user interface for diagnostic purposes, to improve your knowledge of DICOM, and to grab missing data from another server.		
	- Elementary DICOM print server and client - prints to the default printer.		
	- JPEG, JPEG2000 compression and decompression and RLE decompression supported.		
	- Flexible configuration of JPEG and NKI private compression with optional (de)compression of incoming, dropped, transmitted and archived files.		
	- A simple DICOM Modality Worklist implementation with HL7 import with configurable translation. -		
	- A CGI WEB interface with several possible viewers (also on the Linux version which does not have a GUI).		
	- The server can act as an advanced (Lua) scriptable DICOM image forwarder, processor and/or DICOM image cache.		
	- The server integrates a small web client that also acts as a viewer.		
	- The server and its web server operation can be scripted in Lua for any type of processing and extension.		
5.4	DICOM Receiver Component -This component should be DICOM and HL7 compliant and can be deployed on several different operating system platforms:		
	i) Microsoft Windows		
	ii) Various Linux brands		
	iii) Apple OSX		
	The DICOM Receiver uses a database to store information from the DICOM headers, index information for locating objects on the file system, and other pertinent system and clinical data. It must comply with supporting the following Databases (PostgreSQL/MySQL/SQL/Server/DB2/Firebird)		

	- PACS entHMISrise Web - DICOM image server		
	- Modality acquisition		
	- DICOM communication		
	- Advanced compression engine		
	- Unlimited concurrent web licenses		
	- SSL configuration (128 Bit)		
5.5	HIS –RIS –PACS HL-7 integration (Broker less)		
	Seamless integration with any HIS		
	HIS clients can directly access images from PACS (PACS-Web)		
5.6	PACS Insight 2D Clinical Workstations		
	PACS 2D with advanced 2D image manipulation tools		
	Template based Reporting Module		
5.7	PACS – web based diagnostic viewer		
	Any image, Anywhere, anytime		
	Advanced Web based diagnostic quality image viewer		
	2D image manipulation		
	Unlimited user licenses		
5.8	PACS Workflow Manager		
	Integrated workflow manager		
	Rule based image pre-fetching, compression & forwarding.		
	PACS Audit logger PACS Task logger		
5.9	PACS: Radiology Order Processing		
	Registering the order in the radiology department		
	General Purpose Worklist		
5.1	PACS: Radiology Order Scheduling		
	Scheduler for the Radiologist, Technician & Modality		
	Scheduling a specific order at a specific time and date		
5.11	PACS: Modality Worklist & MPPS update		
	Modality Worklist for the technician		
	Automatic update of the status of the ordered procedure		
5.12	PACS: MIS Reports module		
	Comprehensive statistical reports for user configurable parameters		
5.13	General Requirement for teleradiology		
	System administration via WEB interface;		
	User identification by username and password, user rights;		
	Ability to save image viewing settings;		
	Secure data transfer (SSL support);		
	Ability to open more than one study at a time:		
	Zoom in or out;		
	Image inversion and rotation;		

	Control over uploading cases from client location (Under One PID, there should be one part, if multiple parts are uploading, the same shall reflect on radiologist and hospital invoice).		
	Intensity (density of the point) measurement;		
	Changing the Level/Window values;		
	Image zooming;		
	Distance & Angle measurement;		
	Tools for localization of the images in intersecting planes.		
	Possibility to view ophthalmic images from retinal devices such as retinal/fundus cameras, etc. allowing the use of ophthalmology PACS server as a retinal imaging archive. For retinal imaging, ophthalmic photography or other visual spectrum images, the DICOM Viewer must have a color channels tool to digitally apply monochromatic filters for the primary colors as well as for the secondary colors to enhance the visual contrast of anatomical details.		
	The DICOM Viewer's MPR (multi-planar reconstruction) features must include:		
	Orthogonal MPR. 2D multi-planar reconstruction with Axial, Coronal, Sagittal projections;		
	Axial MPR. Axial multi-planar reconstruction;		
	Coronal MPR. Coronal multi-planar reconstruction;		
	Sagittal MPR. Sagittal multi – planar reconstruction;		
	Features of 2D. Window leveling, pan, zoom, measurements, scroll, crosshair, etc. (except image flip/rotate);		
	Cine. Users can cine through a batch of MIP/MPR images for quick review of anatomy within a user-defined range.		
	In addition, the DICOM viewer must be FDA compliant, and must be completely 0-footprint enabled, i.e., the DICOM viewer need not have any local installations in order to function effectively. It must open on any browser.		
5.14	Radiology Reporting Module:		
	The Radiology reporting module must have the following technical specifications:		
	Standard reporting format to be made available for every type of Radiology case		
	Ability for reporting module to generate reports in .docx, .pdf and .json, apart from being able to transmit report in HL7 format if required		
	Ability to generate impression on the top of the report or the bottom depending on user choice		

	Minimal report selection, i.e., the correct report format must be available to the radiologist prior to him/her starting reporting		
	Reporting editor must have all basic editing features – Bold, italics, underlining, bullet points, numbering etc.		
	Reporting editor must have capability to appear on the reporting screen so that Radiologist time is not spent toggling tabs		
	Reporting editor must be Voice-to-text enabled.		
	Reporting and viewing module must allow for key images along with annotations to be inserted as a part of the report to improve physician understanding of the report		
	Mobile access component.		
	All functionalities of the platform that are available on the web should be reflected on the mobile app for easy access. Mobile apps should be available on both apple and android app stores.		
5.15	AI components		
	It is expected that the platform has the ability to generate preliminary AI results for the most common type of scans – X Rays, CT, MRI scans. The AI component must pre-fill AI reports for the Radiologists, to refer		
	The system shall enable HLL to interface third party AI solutions with existing Teleradiology Reporting solution		
	Overall, the particular requirements of the SOFTWARE solution are as follows:		
	Single integrated SOFTWARE module		
	Multi-Nodal support and customizability for each location		
	Easy consolidation and segregation of data from each node.		
	Active directory interface for structured operations		
	Intelligent distribution of incoming scans based on load handled by individual radiologists		
	Compatibility through web interface or otherwise, with all systems		
	Single One-Time implementation effort and thereon dynamic expandability		
	Ability to store DICOM and non-DICOM images		
	Single window, or multi-window multi session capability		
5.16	The software should provide better informed diagnosis with current and stored image comparisons		
5.17	The solution shall strictly adhere to the data privacy terms and conditions followed by HLL.		
5.18	Capable for integration with HIS/RIS		
5.19	Capable of import studies from CD, USB, etc.		
5.2	Export images to CD/USB, etc. option available		

5.21	Should be able to generate custom reports and statics like: -		
5.22	Daily, Weekly, and Monthly Studies performed		
5.23	Unreported and unassigned Studies		
5.24	Storage Utilization		
5.25	Turnaround time calculators on both uploading and reporting modules.		
5.26	Radiologist reporting statistics by modality and procedure		
5.27	Technologist statistics		
5.28	Advanced Dashboard		
5.29	Performance and KPI dashboards		
5.3	Advanced functions like MPR, 3D / 4D, image reconstruction, volume rendering, etc. should be available.		
5.31	Onboarding Clinics, Hospital or Imaging Center for Teleradiology		
	In case of the onboarding process of a new client into HLL panel, the system should be as quick and simple and incur less than 1 hour to configure the entire package on client location. Ideally the process flow will start with the implementation team connecting with the imaging unit and accessing the local area network using a team viewer and installing a gateway app. Following this, the center can share images for teleradiology.		
	A small video presentation tutorial for the client to understand the process flow about the methodology to upload history and clinical documentation shall be made available on the system window itself.		
5.32	Invoicing		
	Radiologist wise invoice - Monthly, Fortnight		
	Hospital Wise invoice - Monthly, Fortnight		
6	<u>TELEMEDICINE</u>		
	<u>Functional Requirement Specifications</u>		
	- The tele medicine solution should be a self-sufficient system capable of acquisition, storage, display and transmission (over a communication link) of patient information including but not limited to registration, consultation/diagnosis, results, prescription details etc. This shall be a hybrid model which supports store-and-forward and real-time based telemedicine consultation creating a complete technological base of all types of services / modalities.		
	- The telemedicine solution should be able to maintain EMR data based on "Electronic Health Record (EHR) Standards for India" guidelines by Ministry of Health & Family Welfare		

	- The solution should be able to maintain and store information including but not limited to patient registration, consultation/diagnosis, results, prescription details etc. based on the Minimum Data Set (MDS) recommended for an EMR under "Electronic Health Record Standards for India" guidelines by the Ministry of Health & Family Welfare. Here, Minimum Data Set refers to "The minimum set of data elements that must be captured, stored, made available for retrieval, presentation, relay and sharing by an EHR system."		
	- There should be a provision to maintain data using unique identifiers for lead hospital, PHCs, lead doctors, PHC level health worker/operator/doctor etc.		
	- The tele medicine solution should provide for a software-based video conferencing/video chat feature to enable live video sessions between the doctor and the patient.		
	- Provision at PHC level for choosing/selecting a doctor from the available master list of lead doctors for Tele-consultation.		
	- The telemedicine solution should support using 'Unique Health Identifier' (complying with "Electronic Health Record Standards for India" guidelines by Ministry of Health & Family Welfare) as a patient id to uniquely identify the patient across the service delivery points.		
	- Patient queuing features should be available.		
	- The doctor at the lead hospital should be able to feed in information in the telemedicine system related to consultation/diagnosis, prescription note etc. ((based on "Electronic Health Record Standards for India" guidelines by Ministry of Health & Family Welfare) details of which may include but are not limited to medication name, drug dose, strength, frequency and duration for which the dosage needs to be taken etc. Similarly, information on follows up visits or referrals details may also be fed into the system.		
	- The e-prescription should include details which shall include but not limited to patient details, lead doctor details, telemedicine consultation note along with date timestamp, medication and prescription details including drugs, dosage etc. complying with standard guidelines as applicable		
	- The lead doctor should be able to confirm and authorize the e-prescription through digital signature Once authorized and submitted by the lead doctor, the e-prescription should be available for view and print at both ends i.e. at the lead doctor and at the PHC level		
	- The doctor at lead hospital should be able to view the list of all patients referred to him/her along with the patient data records, upon login and their status		

	- The telemedicine solution should be able to track the status of the patient right from registration till the final consultation by the lead doctor		
	- Medical record history for patients with multiple visits at the PHC - Functionality to view health/clinical records summary along with date timestamp in a chronological order from the very first visit till recent consultation		
	- The solution should provide high resolution visible light images for patient education and medical records It should be possible to view the images in real time or save them for later review or consultation		
	- The medical images produced (if any) by the medical devices should be DICOM compatible		
	- The solution should be able to ensure that data exchange is performed in a secure manner to ensure data validity and non-repudiability		
	- Modification/Alteration/Deletion of patient clinical data and images should not be allowed post consultation		
	- The solution should be able to support privacy, secrecy and audit trail		
	- The service provider should ensure data protection and backup for recovery, for the pilot duration i.e., 25 years from the date of go-live		
	- The solution should support report generation based on EMR data, downloadable in excel and pdf formats both at lead doctor end and at PHC level		
	- The telemedicine solution should easily be integratable with external systems for EMR data exchange complying with standards such as HL7		
	- There should be at least 2 free USB ports on the offered solution for connecting additional medical devices in future 24 Scalable Architecture: The telemedicine solution along with telemedicine software should be of open architecture and module-based covering functionality including but not limited to maintaining EMR data, MIS Reports etc., and may be scaled in future to incorporate other functionalities such as SMS communication to patients etc.		
	- The service provider should ensure compliance with "Electronic Health Record (EHR) Standards for India" guidelines by Ministry of Health & Family Welfare		

	- Service provider should ensure supply of equipment, installation, integration, testing, Commissioning and maintenance/support of fully functional telemedicine system along with the collaborative tools, materials and consumables and services at all sites		
	- Responsible for supply, testing, commissioning, test run, operation and maintenance of the telemedicine system, all those things and accessories deemed necessary & explicitly not covered in Bill of quantities (BOQ)		
	- Service Provider will be responsible to maintain tele medicine system at PHCs and lead hospital, for a period of 25 years from go-live the make & model of the product supplied by service provider for the project should not come to end of life and end of support in next 5 years from the date of commissioning (OEM Certificate should be submitted by service provider)		
	- All Equipment should be covered under comprehensive on-site warranty/ Maintenance for 25 years from go-live by the service provider from the date of commissioning and acceptance of the system		
	Service Provider should ensure clear pick up of audio, video and live streaming of telemedicine session between lead doctor and patient at PHC level		
	- Service provider should ensure that telemedicine solution should support audio, video and data collaboration at all sites		
	- Service provider should ensure work through all firewalls using the Secure HTTP (HTTPS) protocol		
	- Service provider should manage Configuration management of telemedicine system through GUI based software utility and using interfaces and maintain information of system history logging functions		
	- The service provider should ensure that appropriate class of digital signature certificates for lead doctors are provisioned for, implemented and required support is provided at the sites for smooth operations and validation of e-prescription, complying with standard guidelines issued by Controller of Certifying Authorities (CCA)		
	- The service provider should maintain audit logs of the telemedicine system which may include but not limited to parameters such as number of patients administered per hour or per day, video chat/conference session login and logout timestamp, utilization of medical devices per day, lead doctor login and logout time etc. Service provider should ensure these audit logs to be push / pull to central cloud MIS application		

	- Service provider should ensure EMR data (complying with EHR guidelines document by MoHFW as mentioned above) to be push/pull to respective State Health Information System (HIS)		
	- Service provider should ensure support wire rate throughput for L2, traffic with QoS and Security features for all interfaces		
	- Service Provider must observe proper circuit polarity No cables shall be wired with polarity reversal between connectors with respect to either end Special care shall be taken while wiring cables, to ensure that constant polarity is maintained		
	- The service provider must provide adequate protection to install equipment against electrical surges		
	- The service provider should be responsible for providing connectivity from the terminating point of internet connection at Gram Panchayat to the PHC		
	- Service provider should provide cabling of LAN connection at all sites		
	- Service provider should provide adequate power backup for minimum 2 hours at the sites		
	- Service provider should be responsible for renovating /repairing any electrical work at the sites		
	- Training for knowledge transfer to engineers/operators and support personnel will also be the responsibility of the Service provider		
	- Service Provider must furnish components, wires, connectors, materials and parts, equipment for the complete installation of the system, in accordance with recommendations of the equipment manufacturer		
	- The service provider shall provide on-call support including assistance with operation and maintenance of the system at respective location(s) all free of cost for a period of 25 years from the date of go-live		
	- Operators deployed by the service provider at sites will be responsible for operating the entire telemedicine system K48 Patient Safety Norms as per Industry standards and best practices should be followed by the service provider		
	- Patient Safety Norms as per Industry standards and best practices should be followed by the service provider.		
7	<u>INVENTORY</u>		

	Inventory module deals with the management of Equipment's, Materials, Consumables, and Medicines & Asset items in different centers and multiple centers will be connected through a central warehouse. Requisitions for different items/equipment are sent to this warehouse from different Scan centers and accordingly the warehouse issues items/equipment to various centers or if the stock is below the minimum order level, Warehouse will be raising indent for the same to the corporate purchase department and they generate purchase orders for purchases. This also maintains records of purchases, stock, and supplier list, rate contracts, item/equipment/material master tables etc.		
	- The inventory system shall work as a hybrid (Web& Standalone) architecture.		
	- Local Server transactions shall proceed even if internet connection is not available.		
	- As and when the internet reinstates, all data shall synchronize with the central server and update the web-based purchase system.		
	- A regular synchronization trigger time of 15- 20 minutes can be configured in all local servers for updating the data to the central server.		
	The following are the common terminologies and process flow which the integrated inventory system works.		
7.1	Item Master		
7.2	User Master		
7.3	Supplier Master		
7.4	Manufacturer Master		
7.5	Material Requisition Note (MRN)		
7.6	MRN Approval by center in charge		
7.7	Review of MRN's		
7.8	Indents (Purchase Request)		
	Indent Number		
	Indent Date		
	Indent Type		
	Created By		
	Item Code		
	SKU		
	Current Stock		
	Pending Indent Quantity		
	Requested Quantity (Centre in Charge)		
	Requested Quantity (WH)		
7.9	Stock Transfer		
	Stock Transfer Order No		

	Stock Transfer Order Date:		
	Created By:		
	Item Code		
	SKU		
	Current Stock		
	Transferring Center		
	Batch No		
	Transferring Quantity		
7.1	Purchase Order Processing		
	PO Processing No		
7.11	Purchase order		
	Purchase Order No		
	Purchase Order Date		
	Purchase order Type		
	Created By		
7.12	Purchase order Approval		
7.13	Purchase Order Amendment		
7.14	Goods Receipt Note (GRN)		
	GRN against Purchase Order		
	GRN against Stock Transfer Order		
	GRN without Purchase order (Local Purchase)- Stock update against approval as per delegation of power.		
	Goods Receipt Note No		
	GRN Date		
	Created By		
	Partial GRN		
7.15	Payment Release Note (PRN)		
	Once the GRN procedure initiates against generated PO, the vendor payment releasing is the next step. Here the payment can be released as per the user authorizations. It can be either a full payment or partial payment release. The payment approving user will authorize, review, and approve invoices for payment based on signed agreements, contract terms, and purchase orders. The payment authorization user list as per the DOP is as follows;		
	First Level Auth. user: Centre in charge.		
	Second Level Auth. user: State Inventory Manager.		
	Third Level Auth. User: Project Manager.		
	Fourth Level Auth. User: Operations Manager.		
	Fifth Level Auth. User: State Finance Manager.		

	If the Fourth level auth. If the user approves the payment release note, it will be visible to the state finance department for final verification. After the fifth level approval the payment release note needs to be generated (Format will be shared at later stage) and the same with digital signatory will be visible to the central finance department for payment processing. Once the payment is processed the system shall give a provision to the central finance department user to enter the payment acknowledgement on the system. Once it is entered all the users who all are part of the particular PRN generating procedure should get intimated with the details.		
7.16	Delegation of power - Multi level approval based on the user for each module (MRN, PI, PO and Local Purchase). A proper release strategy in place with date of start and date of end for a particular user.		
7.17	Integration of PRN with SAP system		
7.18	Maintains the details of all items, its suppliers and purchase details.		
7.19	Option to categorize items in different groups.		
7.2	Generate Purchase order linked with warehouse indents.		
7.21	Maintain Separate Stock of Central Store & Multiple Sub Stores.		
7.22	A particular store can indent items from all other stores.		
7.23	Maintain vendor details from whom Items are being purchased.		
7.24	The Central Store can acknowledge the return of the purchased item.		
7.25	Option to return stock from various center stores that are not required by them back to the Central Store.		
7.26	Different stores can issue Items to other Stores, Department.		
7.27	Strict Check on the Expiry Date of Medicines & Consumables.		
7.28	Items can be issued according to FIFO & LIFO check.		
7.29	Maintain Reorder Level of Items and warn accordingly.		
7.3	Shall have facility to track goods nearing expiry		
7.31	Option to enter Item/Material consumption of items sub department wise.		
	The following MIS reports can be generated as part of this module:		
	i) Report of all items according to their group.		
	ii) Stock in Hand Report (Group & Batch Wise).		
	iii) Stock Valuation on Purchase Rate & M.R.P.		
	iv) Report on Stock Movement as when & from where Item was issued and to whom it was issued.		
	v) Items Expiry list & warning.		
	vi) Reorder Level of Items.		
	vii) Purchase & Issue Registers.		
8	<u>General Terms and Condition</u>		

8.1	HMIS infrastructure shall be provided for all existing projects and upcoming projects. HLL shall be free to use any modules/services/packages as and when required license free.		
8.2	The bidder shall understand the initial requirements of HLL and suggest the cloud requirements (In writing) to HLL. To ensure the data ownership and security, HLL will host the entire application on our own cloud premises and will provide limited access to support/Development team for implementation		
8.3	The entire HMIS and hardware (Token, OMS) supplied by the vendor shall be provided with 5 years onsite maintenance support. For all Hardware, System Software, Networking, 5 years onsite comprehensive support (labor and parts) will be provided.		
8.4	System should run 24x7.		
8.5	All the latest hardware and software should be provided with latest Technology, maximum up to six months old. Beyond that it will not be acceptable.		
8.6	All the licenses for the software will be provided in the name of the client. HLL can completely customize the package and use/supply the HMIS solution to another hospital with full customization rights.		
8.7	The Lead bidder shall provide training to staff recruited by HLL from the source code level and make a team ready for future support, development and implementation within 1 year of first implementation.		
8.8	Training for all users as per the requirement of the client hospitals shall be provided by Lead bidder for HMIS Solution for the period of 1 year till the HLL team is ready to take over the implementation charge.		
8.9	In case after completion of 1st session of training, if additional session is required for any existing user or new staff joining the organization (KCGMC), then a separate training program shall be organized without any extra charges. This is applicable for one year (duration of the project) or till completion of the project.		
8.1	For the entire Application software (HMIS, RIS, PACS, QMS, EMS, LIMS, Telemedicine, Teleradiology) - Up-gradation of the application, new requirement of the user like new report preparation, new patches/bugs up-gradation, new versions etc. to be covered free of cost for 5 years.		
8.11	Backup Server:		

	The Bidder needs to propose backup server configuration for the entire HMIS and Image storage solution after understanding the requirements of HLL. HLL will provide the same to the lead bidder and the bidder shall configure the system in such a way that the Backup server should be able to take-over if the Primary Server fails (in case of server crash, disaster/fire, etc.). As and when the Primary Server becomes live again, it should automatically synchronize with the data on the Secondary Server. This is to avoid users from being stranded without access to patient data at any point of time. The bidder shall ensure the real time mirror backup of the primary server to the Backup/secondary Server. The backup Server should be able to be used as a Primary Archive also.		
8.12	In case of collection points/ Franchisee labs synchronization of the offline registered data (through Mobile Application/Web Application) required upon restoration of internet or upon reaching the Lab where internet is available.		
8.13	Offline functionality that allows users to keep working in the event that the internet goes down. Once the internet connection is regained, all the data entered is synchronized to the corporate cloud. Eventually real-time Dashboard data also shall get updated.		
8.14	Capability to send reports by Email, WhatsApp from HMIS (Lab Module).		
8.15	Preprinted Bar-coding facility. Entry of details shall be possible offline, upon scanning this barcode on the site of sample collection, using mobile application of the software.		
8.16	An application shall be made available for the users to generate preprinted barcode labels - location wise.		
8.17	Real time Dashboard: Web based		
	1) The party shall design and develop Administrative Realtime Dashboard which cover all the projects run by HLL-Healthcare services division.		
	2) The Administrative dashboard shall provide the system administrator with the ability to manage users. This shall include functionality to add, view, edit, and delete users from the system. In addition, the system shall provide the system administrator with the ability to manage user's roles (add, view, edit, and delete). Once the user roles have been defined, the system administrator shall be able to assign users to a selected role(s). The user roles are defined by permissions and will dictate what level of dashboard the user will view and/or perform tasks on.		

	3) The System Configuration shall be managed from databases of all projects. The system shall be able to interface with all available data resources/projects that are required to retrieve, store and display the data according to the respective functional areas.		
	4) As per HLL requirement and host on a domain which HLL provides.		
	5) The system shall provide users with the ability to visualize data in a Dashboard.		
	6) The system shall provide the system administrator with the ability to manage the level of Dashboard visibility for each user (Operator, Manager, System Admin, Public). The dashboard view for each user will be determined by which role each user is assigned.		
	7) The system shall be able to interface with future systems and data sources once they are bought online and made available		
	8) The administration module shall provide the system administrator the capability to manage user access to any of the projects including the assignment of roles and permissions associated with assigned roles.		
	9) The Main dashboard shall enable the restricted users to visit the connected public dashboard of various projects through their login page.		
	10) All the public dashboards pertaining to projects shall have public and user restricted views. In case of user restricted view, the in-depth analysis, detailed and administrative report generation shall be made available for both HLL and client.		
	11) Each project shall be hosted on a different domain based on the client requirement.		
	12) The party shall change the design/pattern/look & feel of the project dashboard as and when required by the client.		
8.18	HLL shall have Full rights to rename the entire software package as per the needs and necessity and have full rights to remove the bidder/original software name from the entire software package. HLL have complete rights to display the disclaimers, copyright, word mark, trademark and product warranties.		
8.19	HLL holds rights to generate an unlimited number of licenses for the entire HMIS product. The bidder shall not have any rights to restrict the licensing or usage of the product.		
8.2	Software Interfaces		
	i) The HMIS shall communicate with SAP systems.		
	ii) The HMIS shall communicate with third party dashboards/software through API for restricted and secure data transfer.		

	iii) The HMIS shall communicate with Ayushman Bharat Digital Mission (ABDM) or related platform to integrate for UID.		
	iv) The HMIS shall communicate with Verisign, Razor pay like software which shall allow the users to complete secured transactions. This usually shall be the third-party software system which is widely used for internet transaction.		
8.21	Disaster Recovery		
	i) The cloud provider should enable an alternate DB as part of DR alternative		
	ii) There should be a mock drill conducted every quarter at least as part of validation check of the DR system		
	iii) The DR should enable the link and data within maximum 2 to 5 minutes duration without any loss of data to the last minute of stop of operation		
	iv) Stop gap analysis should be done periodically and graph and reports submitted for retention and documentation		
	v) The DR should have the same operation capacity of that of the original DB		
9	<u>QMS (Queue Management System)</u>		
9.1	System Process Flow		
	Queue Management System essentially comprises Token Dispenser Unit with touch screen, Master Display (LED TVs), Computer desktops (each with a different client operator software) installed at the registration counter connected through LAN, Counter Display, and Server with Manager Console server software.		
	The location of these would, however, depend upon the OPD setup for the hospital/Diagnostic/Polyclinic center.		
	The visiting patients could be categorized as – General, Ladies, Hospital Staff, Senior Citizens/Handicapped.		
	Complete infrastructure for Queue Management System for all the OPD and Doctor/Consultant's rooms in the entire hospital/Diagnostic/Polyclinic center 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 HLL as per the hospital patient management structure.		
9.2	Functional and Technical Requirements		
	Queue Management System shall be required for the OPD for waiting of the patient at OPD area and further required in each Consultant's room for waiting of the doctor/consultant in the hospital/Polyclinic.		

	Technology should be the latest for all the equipment.		
	QMS shall also be linked with the OPD/Registration appointment module of the HMIS to cater all the patients who have already taken the appointment (online through web-portal, Telephone, walk-in etc.) for a particular consultant and visit to the OPD.		
	The QMS system will be used for both visiting patients and those who have taken the prior appointment.		
9.3	Technical Requirements		
9.3.1	<u>System - Based on Controller/Server with latest technology</u>		
	The system should have capability of integrating with the HMIS application.		
	Ability to invoke an idle counter by calling the next customer on the counter through administrator access.		
	Ability to service a customer out of turn.		
	Admin can view patient details such as arrival time, patient details, amount of time waited, expected wait time		
	Admin should be able to add or reduce counters or change counter definitions on the fly and token dispensations should change accordingly.		
	Admin should be able to change some, or the entire algorithm parameters based on the dynamic situation in his station.		
	Admin should be able to change the promotional messages and edit the list of services and customer types displayed in the input module.		
	Admin should be able to define counters, i.e., which counters will do what services and what are the timings of each counter		
	Built-in Information Kiosk in the touch screen-based user panel. Not only does it provide additional information about listed services, but a customer can also use it to obtain detailed information about various services offered by the OPD. Facility for user configurable form-based data collection against each token · Touch screens should use the latest SAW based technology.		
	Central Monitoring Software: Central Monitoring software installed at the Central office provides three major functions.		
	Delay alerts Manager gets a pop up with a Beeper showing details of a token where the benchmark has exceeded (wait time, transaction time). In reports, all transaction times and waiting times exceeding preset Benchmark times are shown in red.		

OT Display Module allows the OT staff to update the status of the patient in the OT in real-time and facilitates the broadcast of this real-time information to an external display. This saves the time of the OT staff from the hurdles of coming out from theatre to manually update the patient status to people.		
Facility to add remarks for each token. The remarks are visible to every successive operator to whom this token is forwarded. Next operator can add his own remarks. Each remark carries the ID of the counter where the remark is added. Token wise remarks are also shown in the reports		
Forward-back a token. An operator can forward-back a token to another service. On completion at forward service, the token is returned back to the sender counter on priority.		
Generate Employee efficiency statistics		
Generate Statistical data on patient wait times and transaction times		
Group calling: During the rush hours (configurable for each branch), 2, 3 or 4 successive token tickets carry the same token numbers and separate subscripts. Customers carrying token tickets of same token numbers are called together to a counter and are served as per their respective subscripts.		
In nested services/ multiple services, the system should automatically move as the next service to the next counter immediately once the customer has finished with the previous Service at the previous counter.		
In the absence of the PC at the counter the system should have the capability, through some other gadget, to include that counter in the QMS system.		
Internal Services: Two types of internal services are available. The first types are not available on the Operator panel for selection. For the second type, associated counters are not shown on the Master Display. Both services are independently selectable.		
Map services to multiple Operator counters		
Max wait & transaction time. Operator report shows maximum waiting time and maximum transaction time.		
Multi-counter services: Some services may require the customer to go to multiple counters to complete the process. Our system supports such functions. If a service is configured, then after getting served at one counter, he will automatically be queued up at the next counter listed for that service. This feature can be used in addition to or in place of multi-service selection by the customer.		

Operators should be able to stop or pause operations. On pausing, the counter should not be available to the scheduler for allocating a customer during this time		
Operator should be able to view the services aligned against his counter, upcoming token no., past token nos. serviced, tokens missed.		
Optimize staffing models on basis of workforce efficiencies		
Priority Customer: Facility for Manager to give priority to a particular customer		
Reports on breaks taken. Whenever an operator takes a break, he is required to enter the reason. An operator wise report of breaks taken with Reason is available.		
Selective Master Displays: Facility to have multiple master displays each one showing different counter groups.		
Should have Built-in digital signage, so that in addition to displaying Token Number-counter tables, it can display promotional video/images and multilingual scrolling text as configured.		
Single click to complete current token and call next		
Skipped tokens: Detailed Report of skipped tokens		
System administrator should have the permission to modify the text on the LED scrolling display.		
The software should also be capable of running on thin clients.		
The status of the token should be displayed on the LED screen tokens and in an easy format.		
The system GUI should have multi-lingual Support (English & Hindi).		
The system should allow system administrators to activate / deactivate services across the counters.		
The system should allow system administrators to monitor the workload across the counters.		
The system should allow system administrators to view the services available at any counter.		
The system should allow text chat between operators and between manager & operators		
The System should allow the administrator to modify the details to be printed on the token.		
The system should be able to print the token in the language selected by the customer. · The QMS system should flash promotional / compliance messages while idle.		

The system should be able to provide a non-interactive live view of real time statistics for all the stations remotely from a central location.		
The system should be able to redirect / reassign between service to service,		
The system should be able to use existing PCs at the stations for the implementation		
The system should generate the audio alerts (voice) and display the information on the LED.		
The system should have the facility of assigning benchmark time for different services.		
The system should have the facility of categorizing the customers.		
The system should have the facility of displaying the token number to be serviced.		
The system should have the facility of prioritizing the services for priority customers.		
The system should keep information of skipped token/s		
The system should provide generation of alphanumeric token numbers.		
The system should provide multiple languages for voice notification.		
The system should provide touch screens for selecting services.		
The system should provide Web based access by the users through Station's standard web browser.		
The system should support generation of unique token numbers for the day & station.		
The system should support single / multiple selection of service/s at the time of dispensing the token.		
The system should support the nested services under the services which can be selected by the patient/operator.		
The voice call should be in the language selected by the customer at the time of taking the token.		
Ability to view end of day and period wise MIS reports on footfalls, patient mix, transaction mix.		
Service wise break up of tokens- Day wise and Month wise		
The system should be able to connect to 2 or more Separate token display units.		
The system should be able to provide configuration like adding /deleting services, change the token machine display properties (color, width, fonts, etc.), language, change LED display unit		

	properties (fonts, logo, token no & counter no. layout, etc.), change elements in token (logo, waiting customer count, promotional message, etc.) · The system should be able to generate following reports with facility to drill down:		
	The system should be able to provide a real time floor view to the admin and enable the manager to send messages to the HMIS performing counter.		
	The system should manage the queue in real time and integrate with speakers.		
9.4	Software Application		
	Web and client/server-based application		
	Database – as per the requirements		
	Software Application to be integrated with the HMIS application if required or as per the requirement of the hospital.		
	Desktop application – Browser based		
9.5	Special Terms		
	After HLL Engineer's initial site visit, the bidder provided the plan, design and site preparation as per requirement and as directed to the satisfaction of the hospital authorities/center requirement and as per terms of the technical and functional requirements of the hospital/Polyclinic. If required, Software application for Queue Management System to be customized as per the requirements of the hospital.		
	The software shall be compatible with all the latest equipment. Technology of all the equipment including LED TV should not be more than six months old at the time of implementation of the Queue Management System		
	The bidder shall provide training on all QMS aspects from the licensing to the implementation and post implementation support shall be given to HLL deputed engineer within 1 year of warranty period.		
	The Queue Management System solution provided should have been implemented in a large hospital which caters at-least 1000-2000 patients per day in OPD and the system should use multiple token dispenser units (at least 2 or more) for printing of tokens simultaneously. The service provider also has experience in implementation of the QMS for the consultant's room. The documented proof shall enclose along with the bid.		
	All the licenses of the software will be provided in the name of the HLL.		
9.6	Technical Specification for the Queue Management system Kiosk		
	Kiosk should be Floor Mount with Touch Screen comprising of the following		
	Switch, multiple Services and multiple counters support		

	Additional VGA port and VGA amplifier to drive Master LED displays		
	Thermal Printer with auto-cutter (Token Dispenser Unit)		
	Required interfaces and power supply		
	Support multiple services and multiple counters as per the requirements.		
	General Paper width – 58mm, Paper Roll size – 50 meter or as per the requirements.		
	Dispenser machine minimum capacity holding capacity of 50 meters to generate at least 500 tickets without a refill or as per the requirements.		
	Support multiple Dispenser connectivity.		
	The system should have the capability of generating alerts to the administrator for events like device fault, printer out of paper, paper jam etc.		
	The system should be able to connect to 2 or more separate token display units as per the requirements.		
	Shall be Integrated PC with Windows 10/11 OS or latest Windows OS		
10	<u>TICKETING/HELPDESK MODULE</u>		
	Objective: Helpdesk Module is to provide an end-to-end Ticketing solution for locations/partners/diagnostic centers/projects which comes under HLL, a full-fledged Ticket management solution for HMIS Helpdesk. This module will computerize the operations of Hospital/Centre/Polyclinic/Institution, thereby improving the operational efficiency and ensuring better management of resources and timely support. The basic objective of a help desk is to resolve IT related issues and provide IT related services and deliverables on time. This module will help users (or requesters) to issue tickets or service requests and manage them throughout their lifecycle.		
	The Objectives of Help Desk project are:		
	i) Ability to measure the service provided to the end user.		
	ii) Tracking of the issue and solution provided.		
	iii) To have more transparency of the system.		
	iv) To monitor the overall IT operations of a Hospital/Institution.		
	Following are the required modules identified in the Helpdesk project. A Helpdesk project is required to perform multiple operations and functionalities which can be clearly classified into the following modules. A very high-level overview of all the modules is explained below and the detailed requirement of the required solution shall be addressed in the detailed requirements section.		

10.1	<u>End User Module (General Public / Health Care Provider)</u> - Inbox, my tickets, new tickets, Open tickets, In Progress Tickets, Resolved Tickets, Closed Tickets, Reports etc.		
	In the end user module, the user can register themselves to create an account, during the creation of the account the user has to choose the directorate, district, region, hospital, institution and the email id and password. Once the user is logged in to his account, he/she can create a ticket and it will be automatically assigned to the agent.		
	i) Login / Registers to helpdesk system		
	ii) Creation of tickets		
	iii) Monitor the status of the ticket		
	iv) Closes the ticket if solved or reopens the ticket		
10.2	<u>Call Centre Agent Module</u> - Inbox, my tickets, Open tickets, In Progress Tickets, Resolved Tickets, Closed Tickets, Reports etc.		
	The Call Centre agents are the helpdesk agents who will be checking the tickets created by the user and they will be routing the ticket to the appropriate institution or hospital from which they have received a ticket from the user.		
	i) View of tickets created by user		
	ii) Creation of tickets		
	iii) Updates the status of the ticket		
	iv) Set the priority of the ticket		
	v) Assign/Routes the tickets to the Institution POC		
	vi) Create User Roles (Field Agent, External Stakeholders)		
10.3	<u>Institution POC Module</u> - Inbox, mytickets, Open tickets, In Progress Tickets, Resolved Tickets, Closed Tickets, Reports etc.		
	The Institution POC are the one who is the system admin or the main IT Team, who is responsible to solve the technical issues. If the institution POC can solve the ticket he/she closes the ticket and updates the agent as the ticket status is resolved, if he/she is not able to solve the ticket, he/she assigns the ticket to the field agent.		
	i) Views the ticket		
	ii) Updates the status of the tickets		
	iii) Set the priority of the ticket		
	iv) Assign / route to Field Agent		
	v) Create User Roles (User, Field Agent, External stakeholders)		
10.4	<u>External/software Agent Module</u> - Inbox, my tickets, Open tickets, In Progress Tickets, Resolved Tickets, Closed Tickets, Reports etc.		
	The external/software agent is the one who is responsible for solving the technical issues. This includes the development and operation team leader. If the Agent can solve the ticket, he/she closes the ticket and updates the Institution POC as the ticket status is resolved, if he/she not able to solve the ticket, he/she assigns the ticket to HLL management/Admin module		

	i) View the ticket		
	ii) Works on the ticket / issue		
	iii) Updates the status of the ticket		
	iv) Create User Role (External Stakeholders)		
10.5	<u>Admin Module</u>		
	Admin is the only one who controls the users, agents, institutions, field agents, External Stakeholders. Admin can create and manage the group / individual who is using the help desk.		
	Escalation Metrics involved in the ticket: Having complete control over ticket resolution is essential to deliver flawless customer service. Based on the ticket critically, the help desk can provide automatic escalation management from the lower level right up to the higher-level management in the institution.		
	Priority based Escalation Management: Assign critical tickets to the right staff by using custom ticket statuses defined based on priorities. Create statuses like 'Low' or 'High Priority' so that a low ticket will be addressed after 2 days or after closing the high priority tickets whichever is earlier, high priority tickets will be closed immediately.		
	There are three levels Ticket Priority:		
	1. Low – Ticket to be closed in 2-4 days of time		
	2. Medium – Ticket to be closed within 1-2 days of time		
	3. High – Ticket to be closed in 1 day		
	4. Extreme High - Ticket to be closed in 12 hours		
10.6	Who sets the priority of the ticket?		
	The priority of the ticket can be assigned by the user when creating the ticket.		
	This priority can be altered or modified by the agent who routes the tickets to the concerned person.		
10.7	What will happen if the high priority ticket is not closed by the given time?		
	In the admin panel, when a login is created for the Agent, Institution or Field Agent, we will take input of email id to whom the escalated email should be sent.		
	The Ticket will be escalated to the higher official in the Institution.		

SPECIAL CONDITIONS OF CONTRACT (SCC)

The following Special Conditions of Contract (SCC) will apply for this purchase. The corresponding clauses of General Conditions of Contract (GCC) relating to the SCC stipulations have also been incorporated below.

- These Special Conditions will modify/substitute/supplement the corresponding (GCC) clauses.

Whenever there is any conflict between the provision in the GCC and that in the SCC, the provision contained in the SCC shall prevail.

There are no special conditions or contracts for this tender and all other conditions mentioned in other sections stand valid.

Annexure-01

SELF - DECLARATION

Tender: Supply/Develop, Install & Implementation of Hospital Management Information System (HMIS).

Tender No. HLL/CHO/HCS/IT/2022/95

To,

Deputy General Manager (HCS)

HLL Lifecare Limited,

HLL Bhavan, Poojappura, Thiruvananthapuram -695012, Kerala, India

Tel: 0471 2775500, 0471 2350959 (EXTN – 224/640), Website – www.lifecarehll.com

Dear Sir,

We certify that, we have not been de-registered or debarred or blacklisted or banned / suspended for business for any product or constituent of the product we have quoted, by the State Government / Central Govt. Organization /State Medical Corporations/ Director Health Services and or convicted by any court of law, till the due date of submission of BID as specified in the subject BID. If we, at a later date, are found guilty of suppressing facts in this regard, such act on our part shall be considered a fraudulent practice in accordance with the Instructions to Bidders and the Purchaser shall be entitled to reject our BID for the product quoted, submitted by us against this Tender.

Also certify that the quoted products possess relevant quality assurance certification issued by the concerned authorities for all the offered products.

We hereby guarantee that the product supplied by our company are not spurious and we further guarantee not to supply any sub-standard or half developed. We assure that the entire software package to be supplied shall be as per the formulations / standard approved / specified in the aforementioned bid document or as per the regulation of standard HMIS standard.

We have also noted that after submission of BID and before award contract, if we are deregistered or debarred or blacklisted by State Government or Government of India / Drug Controller, our BID will be considered as non-responsive.

We hereby declare that the facts provided for the purpose of this tender are correct and true to the best of our knowledge. We are well aware that any discrepancy in the same makes us liable for disqualification / debarment / appropriate action by the tenderer.

Date:

Place:

Signature:

Name:

Designation:

Seal:

Annexure 02

BID FORM

Ref:

Date:

To,

Deputy General Manager (HCS)

HLL Lifecare Limited,

HLL Bhavan, Poojappura, Thiruvananthapuram -695012, Kerala, India

Tel: 0471 2775500, 0471 2350959 (EXTN – 224/640), Website – www.lifecarehll.com

Dear Sir,

Tender: Supply/Develop, Install & Implementation of Hospital Management Information System (HMIS).

Tender No. HLL/CHO/HCS/IT/2022/95

Having examined the Bidding Documents, including Addenda Nos. [insert numbers], the receipt of which is hereby acknowledged, we, the undersigned, offer our services in full conformity with the Bidding Documents for the total amount against the total software solution as indicated in the price Schedule.

We undertake that in case our bid is accepted, we shall Commence work and shall make all reasonable endeavor to achieve contract acceptance. We agree to abide by this bid, which, in accordance with consists of this letter, the Price Schedule, letter of authorization, documents establishing conformity, and Attachments through [specify: the number of attachments] to this Bid Form, up to 06 months from the date of opening of financial bids and it shall remain binding upon us and may be accepted by you at any time before the expiration of that period.

We declare that the above quoted price for the product is firm and shall not be subject to any variation for the entire period of the assignment. We further declare that the above quoted prices include all taxes as on the date of bid submission, duties and levies payable by us under the aforesaid assignment.

We declare that price/ rate offered is for the supply, implementation and of HMIS at HLL designated diagnostic centres across INDIA and all other related activities.

The costs of withdrawals of these deviations / exclusions are enclosed with the Price Schedule. In case a formal final Contract is not prepared and executed between us, this bid, together with your written acceptance of the bid and your notification of award, shall constitute a binding contract between us. We understand that you are not bound to accept the lowest or any bid you may receive.

We, the Bidder shall indemnify, defend and hold harmless Government of India, HLL, its Affiliates, officers, directors, employees, agents, and their respective successors and assigns, from and against any and all loss, damage, claim, injury, cost or expenses (including without limitation reasonable attorney's fees), incurred in connection with third Party claims of any kind that arise out of or are attributable to

- (i) Manufacturer's/Bidders breach of any of its warranties, representations, covenants or obligations set forth herein or
- (ii) The negligent act or omission of the Manufacturer/Bidders.
- (iii) Any product liability claim arising from the gross negligence or bad faith of, or intentional misconduct or intentional breach of this Contract by bidder or any affiliate.

We agree to all terms and conditions of the Bid Document and subsequent amendments.

Dated this [insert number] day of [insert month], [insert year].

Signature.....

Name.....

Full Address with contact person Name, Phone number and Email

Designation and Common Seal.

Annexure 03

CATEGORY DETAILS OF THE ORGANIZATION

SL No.	Description	Yes/No
1.	*Whether the organization belongs to the MSME category	
2.	*If yes whether the organization belongs to MSE category	
3.	*Whether the MSE organization belongs to SC/ST entrepreneur.	
4.	*Whether the MSE organization belongs to woman entrepreneur.	
5	Whether the MSE organization is registered under MSE Type of Enterprise 'Manufacturer'	

***Kindly furnish the copies of documents supporting your above claim along with this Annexure duly filled.**

***The Udyog Aadhar no of the bidder**

(Self-attested copy of Udyog Aadhar registration certificate should be submitted along with the technical bid)

Date:

Signature of the Bidder:

Place:

Name with seal:

Designation:

Address:

Annexure 04

To,

Deputy General Manager (HCS)
HLL Lifecare Limited,
HLL Bhavan, Poojappura, Thiruvananthapuram -695012, Kerala, India
Tel: 0471 2775500, 0471 2350959 (EXTN – 224/640),
Website – www.lifecarehll.com

INDEMNITY CERTIFICATE

Dear Sir,

As a supplier to HLL, the indemnifier assumes liability for and irrevocably agrees to indemnify, defend and hold harmless Government of India and HLL Lifecare Limited, its Affiliates, shareholders, officers, directors, employees, agents, and their respective successors and assigns from and against any and all losses, damages, claims, actions, liabilities, proceedings, injury, cost or expenses (including counsel's fees of whatsoever kind of nature arising out of or in any way connected with the licenses granted or the manufacture of the products or out of any defect (whether obvious or hidden) in the products or arising from the indemnifier's failure to comply with applicable laws.

Dated this [insert number] day of [insert month], [insert year].

Signature.....

Name.....

Full Address with contact person Name, Phone number and Email

Designation and Common Seal...

Annexure 05

PERFORMANCE BANK GUARANTEE FORMAT

To: _____ (Name of Purchaser) WHEREAS
_____ (Name of Supplier) (hereinafter called "the Supplier") has
undertaken, in pursuance of Contract No. _____ dated
_____ 20__ to supply _____ (Description of Goods and Services)
(hereinafter called "the Contract").

AND WHEREAS it has been stipulated by you in the said Contract that the Supplier shall furnish you
with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with
the Supplier's performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Supplier a Guarantee:

THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the
Supplier, up to a total of _____ (Amount of the Guarantee in Words and
Figures) and we undertake to pay you, upon your first written demand declaring the Supplier to be in
default under the Contract and without cavil or argument, any sum or sums within the limit of
_____ (Amount of Guarantee) as aforesaid, without your needing to
prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the _____ day of _____ 20__

Signature and Seal of Guarantors

Date: _____ 20__

Address: _____

Annexure 06

CHECK LIST

SL NO	PARTICULAR OF DOCUMENT	ATTACHED / NOT ATTACHED	PAGE NO	REMARKS
1	Forwarding letter indicating the submission of technical documents along with check list of documents			
2	EMD/ Tender Fee in the form of BG/DD (copy of the NEFT/RTGS details)			
3	Tender document duly signed and stamped in all pages along with corrigendum (if Any)			
4	Copy of Udyog Aadhaar, in case of MSME bidders			
5	Authenticated copy of the Memorandum of Association/Articles of Association / Partnership deed etc and certificates of incorporation/ registration of the organization with details of Name, Address, Tel. No., Fax No., E-mail Address of firm and the M. Director / Partner / Proprietor			
6	Documentary proof attested by Chartered Accountant for establishing the average annual turnover of Original Manufacturers having a minimum average annual turnover of Rs.5 Crores (Rupees Five Crores only) during the last three years i.e., 2019-20, 2020-21 and 2021-2022 (Original/ provisional). In case of Authorized agents, they must submit the documentary proof attested by Chartered Accountant for minimum average turnover in the last three years i.e., 2019-20, 2020-21 and 2021-2022 (Original/ provisional) is Rs. 1 crore (Rupees One crore only). And documentary proof attested by Chartered Accountant for establishing their Principal manufacturers meets the eligibility criteria for original manufacturer as specified above. In case of bid by authorized agents, manufacturers authorization form must be attached with the bid submitted			
7	Copy of Functional testing report for integrations completed on ADBM Sandbox Integration and Exit process which includes ABHA Number			

	creation and capture & verification, share consented digital health record via ABHA Mobile Application, Share patient's longitudinal history with healthcare workers with consent.			
8	Copy of the report of Functional & non-functional Testing of the application by the internal NHA team, Copy/Proof of the report of Security testing of the web/mobile application from any STQC or CERT-IN empaneled agency, Copy of Summary details document which submitted to ABDM during exit process.			
9	Power of Attorney in stamp paper (RS.200/-) duly notarized authorizing the signatory to sign the bids and transact business.			
10	Authorization letter from manufacturer (Self-attested Copy).			
11	Annexure 1 - Self Declaration			
12	Annexure 2 - Bid Form			
13	Annexure 3 - Category details of Organization			
14	Annexure 4 - Indemnity Certificate			
15	Annexure 5 – Performance Bank Guarantee Format			
16	Annexure 6 - Check List			
17	Annexure 7 – Compliance to Rule 144 (XI) of GFR 2017 (Self Declaration)			
18	Annexure 08 – Quality Cost Based System			
19	Annexure 09 - Make in India Preference (Self Declaration)			
20	Annexure 10 – Pre-Contract Integrity Pact			
21	Copy of PAN Card & GSTN details			

Annexure 07

SELF DECLARATION – COMPLIANCE TO RULE 144 (XI) OF GFR 2017

We,

.....

.....

.....

(Include name and address of the bidder)

Hereby declare that we are eligible to bid for the tender:

(Include tender number and date)

As per the eligibility stipulated by Government Order no F.No.6/18/2019-PPD dated 23-July-2020 inclusive of the latest amendments regarding insertion of rule 144(Xi) in the General Financial Rules (GFR) 2017, issued by Ministry of Finance, Government of India.

We are aware that any bidder indenting to participate in this tender who is 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 Competent Authority as per the GO.

Date:

Signature of the Bidder:

Place:

Name with seal:

Designation:

Address:

QUALITY COST BASED SYSTEM

Illustration

STAGE 1: TECHNICAL BIDS EVALUATION

Bidder details	Technical Mark scored (T)
Bidder1	92
Bidder2	85
Bidder3	55
Bidder4	75

Highest marks scored by Bidder 1 (92 marks) which will be **Tm**

STAGE 2: CONVERSION OF TECHNICAL MARKS TO TECHNICAL SCORE

Bidder details	Technical Score $St = 100 \times T / Tm$
Bidder1	$100 \times 92/92 = 100$
Bidder2	$100 \times 85/92 = 92.39$
Bidder3	$100 \times 55/92 = 59.78$
Bidder4	$100 \times 75/92 = 81.52$

STAGE 3: FINANCIAL BID EVALUATION

Bidder details	Financial Bid Amount (F)
Bidder1	1,30,000
Bidder2	1,20,000
Bidder 3	1,10,000
Bidder4	1,00,000

Lowest price quoted by Bidder 4 (**Fm**)

STAGE 4: CONVERSION OF FINANCIAL BID AMOUNT TO SCORE

Bidder Details	Financial Bid Amount	Financial Score Sf= 100 x Fm / F
Bidder1	1,30,000	100000/130000 x 100= 76.92
Bidder2	1,20,000	100000/120000 x 100= 83.33
Bidder3	1,10,000	100000/110000*100= 90.90
Bidder4	1,00,000	100

CONSOLIDATED TECHNICAL & FINANCIAL SCORE

Bidder Details	Technical Score	Financial Score
Bidder 1	100	76.92
Bidder 2	92.39	83.33
Bidder 3	59.78	90.90
Bidder 4	81.52	100

STAGE 5: COMBINED TECHNICAL AND FINANCIAL SCORE (CTFS) WITH WEIGHTAGE 70:30

Bidder Details	Applying weights for the Technical Score & Financial Score	CTFS	Rank of the Bidder
Bidder1	100*(70/100) + 76.92*(30/100)	93.07 (70+23.7)	L1
Bidder2	92.39*(70/100) + 83.33*(30/100)	89.67 (64.67+ 24.99)	L2
Bidder 3	59.78*(70/100) + 90.90*(30/100)	69.12 (41.85+27.27)	L4
Bidder4	81.52*(70/100) + 100*(30/100)	87.06 (57.06+30)	L3

Annexure 09

SELF DECLARATION – MAKE IN INDIA PREFERENCE

In line with **Government Public Procurement Order No. P-45021/2/2017-BE-II dt. 15.06.2017**, as amended from time to time and as applicable on the date of submission of tender, we hereby certify that we M/s_____ (supplier name) are local supplier meeting the requirement of minimum Local content (50%) as defined in above orders for the material against Tender No_____ Details of location at which local value addition will be made is as follows: -----

We also understand, false declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rule for which for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

Seal and Signature of Authorized Signatory

Annexure 10

PRE-CONTRACT INTEGRITY PACT

This Pre-Contract Integrity Pact (herein after called the Integrity Pact) is made on -----¹ day of the month of ----
-----,

Between

HLL Lifecare Limited, a Government of India Enterprise with registered office at HLL Bhavan, Poojappura, Thiruvananthapuram 695 012, Kerala, India. (Hereinafter called “HLL”, which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns) of the First Party.

And

----- India represented by Shri -----
(hereinafter called the “**BIDDER** / Seller” / Contractor which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Party.

Preamble

[Both **HLL** and **BIDDER** referred above are jointly referred to as the Parties]

HLL intends to award, under laid down organizational procedures, Purchase orders / contract/s against Tender /Work Order. HLL desires full compliance with all relevant laws and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder/s and Contractor/s.

NOW, THEREFORE,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence /prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to: -

1. Enable **HLL** to obtain the desired materials/ stores/equipment/ work/ project done at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement; and
2. Enable the **BIDDER** to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and HLL will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereto hereby agree to enter into this Integrity Pact and agree as follows:

Clause.1. Commitments of HLL

1. HLL undertakes that HLL and /or its Associates (i.e. employees, agents, consultants, advisors, etc.) will not demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favor or any material or immaterial benefit or any other advantage from the BIDDER, either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.
2. HLL will, during the tender process / pre-contract stage, treat all BIDDERS with equity and reason, and will provide to all BIDDERS the same information and will not provide any such information or additional information, which is confidential in any manner, to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERS in relation to tendering process or during the contract execution.
3. All the officials of HLL will report to Chief Vigilance Officer of HLL (CVO), any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.
4. HLL will exclude from the process all known prejudiced persons and persons who would be known to have a connection or nexus with the prospective bidder.
5. If the BIDDER reports to HLL with full and verifiable facts any misconduct on the part of HLL's Associates (i.e., employees, agents, consultants, advisors, etc.) and the same is prima facie found to be correct by HLL, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by HLL. Further, such an Associate may be debarred from further dealings related to the contract process. In such a case, while an enquiry is being conducted by HLL the proceedings under the contract would not be stalled.

Clause 2. Commitments of BIDDERS/ CONTRACTORS

1. The BIDDER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following: -
 - a. The BIDDER will not offer, directly or indirectly (i.e. employees, agents, consultants, advisors, etc.) any bribe, gift, consideration, reward, favor, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of HLL, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.
2. The BIDDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favor, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of HLL or otherwise in procuring the contract or forbearing to do or having done any act in relation to obtaining or execution of the contract or any other contract with the Government for showing or forbearing to show favor or disfavor to any person in relation to the contract or any other contract with the Government.
3. The BIDDER will not engage in collusion, price fixing, cartelization, etc. with other counterparty(s).

4. The counterparty will not pass to any third party any confidential information entrusted to it, unless duly authorized by HLL.
5. The counterparty will promote and observe ethical practices within its organization and its affiliates.
6. BIDDER shall disclose the name and address of agents and representatives and Indian BIDDERS shall disclose their foreign principals or associates.
7. The counterparty will not make any false or misleading allegations against HLL or its Associates.
8. BIDDERS shall disclose the payments to be made by them to agents / brokers or any other intermediary, in connection with this bid/contract.
9. The BIDDER further confirms and declares to HLL that the BIDDER is the original integrator / manufacture /authorized government sponsored export entity of the defense stores and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to HLL or any of its functionaries, whether officially or unofficially to award the contract to the BIDDER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.
10. The BIDDER while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to officials of HLL or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.
11. The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
12. The BIDDER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
13. If the BIDDER or any employee of the BIDDER or any person acting on behalf of the BIDDER, either directly or indirectly, is a relative of any of the officers of HLL, or alternatively, if any relative of an officer of HLL has financial interest /stake in the BIDDER's firm, the same shall be disclosed by the BIDDER at the time of filing of tender.
 - a. The term 'relative' for this purpose would be as defined in Section 6 of the Companies Act 1956.
14. The BIDDER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of HLL.
15. The BIDDER will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract, and will not enter into any undisclosed agreement or understanding with other Bidders, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
16. The BIDDER will not commit any offence under the relevant Indian Penal Code, 1860 or Prevention of Corruption Act, 1988; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the HLL as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically. The BIDDER also undertakes to exercise due and adequate care lest any such information is divulged.

17. The BIDDER will not instigate third persons to commit offences outlined above or be an accessory to such offences.
18. The Bidder(s)/Contractors(s) of foreign origin shall disclose the name and address of the Agents /representatives in India, if any. Similarly, the Bidder(s) /Contractors(s) of Indian Nationality shall furnish the name and address of the foreign Principal(s), if any.

Clause.3. Previous contravention and Disqualification from tender process and exclusion from future contracts.

1. The BIDDER declares that no previous contravention occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify BIDDER's exclusion from the tender process.
2. The BIDDER agrees that if it makes incorrect statement on this subject, BIDDER can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.
3. If BIDDER before award or during execution has committed a contravention through a violation of Clause 2, above or in any other form such as to put his reliability or credibility in question, HLL is entitled to disqualify the BIDDER from the tender process.

Clause .4. Equal treatment of all Bidders / Contractors / Subcontractors

1. The Bidder(s) / Contractor(s) undertakes(s) to demand from his Subcontractors a commitment in conformity with this Integrity Pact.
2. HLL will enter into agreements with identical conditions as this one with all Bidders and Contractors.
3. HLL will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Clause .5. Consequences of Violation / Breach.

- I. Any breach of the aforesaid provision by the BIDDER or anyone employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle HLL to take all or any one of the following actions, wherever required: -
 - A. To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other.
 - B. If BIDDER commits violation of Integrity Pact Policy during bidding process, he shall be liable to compensate HLL by way of liquidated damages amounting to a sum equivalent to 5% to the value of the offer or the amount equivalent to Earnest Money Deposit /Bid Security, whichever is higher.
 - C. In case of violation of the Integrity Pact after award of the contract, HLL will be entitled to terminate the contract. HLL shall also be entitled to recover from the contractor liquidated

damages equivalent to 10% of the contract value or the amount equivalent to security deposit/ performance guarantee, whichever is higher.

- D. To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER.
 - E. To recover all sums already paid by HLL, and in case of an Indian BIDDER with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of a BIDDER from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the BIDDER from HLL in connection with any other contract for any other stores, such outstanding payment could also be utilized to recover the aforesaid amount.
 - F. To encash the advance bank guarantee and performance guarantee / warranty bond, if furnished by the BIDDER, in order to recover the payments already made by HLL, along with interest.
 - G. To cancel all or any other contracts with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to HLL resulting from such cancellation/recession and HLL shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.
 - H. To debar the BIDDER from participating in future bidding processes of HLL for a minimum period of five (5) years, which may be further extended at the discretion of HLL or until Independent External Monitors is satisfied that the Counterparty will not commit any future violation.
 - I. To recover all sums paid in violation of this Pact by BIDDER(s) to any middleman or agent or broker with a view to securing the contract.
 - J. In cases where irrevocable Letters of credit have been received in respect of any contract signed by HLL with the BIDDER, the same shall not be opened.
 - K. Forfeiture of performance guarantee in case of a decision by HLL to forfeit the same without assigning any reason for imposing sanction for violation of the pact.
- II. HLL will be entitled to all or any of the actions mentioned in para 5.1(i) to (x) of this pact also on the commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of an offence as defined in Chapter IX of the Indian Penal Code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.
- III. The decision of HLL to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the Independent External Monitor(s) appointed for the purposes of this Pact.

Clause.6. Fall Clause

The BIDDER undertakes that it has not supplied/is not supplying similar product/systems or subsystems OR providing similar services at a price / charge lower than that offered in the present bid in respect of any other Ministry/Department of the Government of India or PSU and if it is found any stage that similar product/systems or sub systems was supplied by the BIDDER to any to the Ministry/Department of the Government of India or a PSU at a lower price, then that very price, with due allowance for elapsed time will be applicable to the present case and the difference in the cost would be refunded by the BIDDER to HLL, if the contract has already been concluded.

Clause .7. Independent External Monitor(s)

1. HLL has appointed Independent External Monitor(s) (hereinafter referred to as Monitor(s)) for this Pact in consultation with the Central Vigilance Commission.
2. The responsibility of the Monitor(s) shall be to review independently and objectively whether and to what extent the parties comply with the obligations under this Pact.
3. The Monitor(s) shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.
4. Both the parties accept that the Monitor(s) have the right to access all the documents relating to the project/ procurement, including minutes of meetings.
5. As soon as the Monitor(s) notices, or has reason to believe, a violation of this pact, he will inform the CVO.
6. The BIDDER(S) accepts that the Monitor(s) have the right to access without restriction all project documentation of HLL including that provided by the BIDDER. The BIDDER will also grant the Monitor(s), upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same applicable to subcontractors engaged by the BIDDER. The Monitor(s) shall be under contractual obligation to treat the information and documents of the BIDDER/ Subcontractor(s) with confidentiality.
7. HLL will provide the Monitor(s) with sufficient information about all meetings among the parties related to the Project provided such a meeting could have an impact on the contractual relations between the parties. The parties will offer the Monitor(s) option to participate in such meetings.
8. The Monitor(s) will submit a written report to the CVO of HLL within 8 to 10 weeks from the date of reference or intimation to him by HLL/BIDDER and, should consent arise, submit proposals for correcting problematic situations.

Clause.8. Criminal charges against violating Bidder(s)/ Contractor(s)/ Subcontractor(s)

If HLL obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if HLL has substantive suspicion in this regard, HLL will inform the same to the Chief Vigilance Officer.

Clause.9. Facilitation of Investigation

In case of any allegation of violation of any provisions of this Pact or payment of commission, HLL or its agencies shall be entitled to examine all the documents, including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

Clause.10. Law and Place of Jurisdiction

Both the Parties agree that this Pact is subject to Indian Law. The place of performance and hence this Pact shall be subject to Thiruvananthapuram Jurisdiction.

Clause.11. Other legal Actions

The actions stipulated in the Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

Clause.12. Validity and Duration of the Agreement

This Pact begins when both parties have legally signed it. It expires for the Contractor/Successful bidder 12 months after the last payment under the contract or the complete execution of the contract to the satisfaction of both HLL and the BIDDER /Seller, including warranty period, whichever is later, and for all other Bidders/unsuccessful bidders 6 months after the contract has been awarded.

If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged / determined by Chairman and Managing Director of HLL.

Clause. 13. Other provisions

1. Changes and supplements as well as termination notices need to be made in writing. Both the Parties declare that no side agreements have been made to this Integrity Pact.
2. Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions

IN WITNESS THEREOF the parties have signed and executed this pact at the place and date first above mentioned in the presents of following witnesses:

HLL

BIDDER

Mr. K.Beji George

(Name & Designation)

**Chairman and Managing Director
HLL Lifecare Limited,
Thiruvananthapuram.**

Witness

Witness

1.....

1.....

2.....

2.....

*** Provisions of these clauses would be amended /deleted in line with the policy of HLL in regard to involvement of Indian agents of foreign suppliers.**