REQUEST FOR PROPOSAL

Tender Document No.: NIHFW/CHI/IHIP/Tender/2017

Development and Implementation of Integrated Health Information Platform (IHIP)

3rd January 2017
# Glossary

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A&amp;M</td>
<td>Approach &amp; Methodology</td>
</tr>
<tr>
<td>ACD</td>
<td>Automatic Call Distributor</td>
</tr>
<tr>
<td>AHT</td>
<td>Average Call Handling Time</td>
</tr>
<tr>
<td>AMC</td>
<td>Annual Maintenance Contract</td>
</tr>
<tr>
<td>ANM</td>
<td>Auxiliary Nurse Midwife</td>
</tr>
<tr>
<td>ASHA</td>
<td>Accredited Social Health Activist</td>
</tr>
<tr>
<td>ATS</td>
<td>Annual Technical Support</td>
</tr>
<tr>
<td>BCA</td>
<td>Bachelor of Computer Applications</td>
</tr>
<tr>
<td>BOM</td>
<td>Bill of Materials</td>
</tr>
<tr>
<td>BPO</td>
<td>Business Process Outsourcing</td>
</tr>
<tr>
<td>CB</td>
<td>Commercial Bid</td>
</tr>
<tr>
<td>CCN</td>
<td>Change Control Notes</td>
</tr>
<tr>
<td>CD</td>
<td>Compact Disc</td>
</tr>
<tr>
<td>CHI</td>
<td>CENTRE FOR HEALTH INFORMATICS</td>
</tr>
<tr>
<td>CIP</td>
<td>Continuous Improvement Plan</td>
</tr>
<tr>
<td>COTS</td>
<td>Commercially Off The Shelf</td>
</tr>
<tr>
<td>CRM</td>
<td>Customer Relationship Management</td>
</tr>
<tr>
<td>CS</td>
<td>Computer Science</td>
</tr>
<tr>
<td>CSA</td>
<td>Customer Service Associate</td>
</tr>
<tr>
<td>CTI</td>
<td>Computer Telephony Integration</td>
</tr>
<tr>
<td>CV</td>
<td>Curriculum Vitae</td>
</tr>
<tr>
<td>CVC</td>
<td>Central Vigilance Commission</td>
</tr>
<tr>
<td>DC</td>
<td>Data Centre</td>
</tr>
<tr>
<td>DD</td>
<td>Demand Draft</td>
</tr>
<tr>
<td>DeitY</td>
<td>Department of Electronics and Information Technology</td>
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<tr>
<td>DR</td>
<td>Disaster Recovery</td>
</tr>
<tr>
<td>EMD</td>
<td>Earnest Money Deposit</td>
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<tr>
<td>EMS</td>
<td>Enterprise Management System</td>
</tr>
<tr>
<td>EOI</td>
<td>Expression of Interest</td>
</tr>
<tr>
<td>ESH</td>
<td>Extended Service Hours</td>
</tr>
<tr>
<td>FIC</td>
<td>Functional cum Implementation Committee</td>
</tr>
<tr>
<td>FR</td>
<td>Functional Requirements</td>
</tr>
<tr>
<td>GFR</td>
<td>General Financial Rules</td>
</tr>
<tr>
<td>GIS</td>
<td>Geographical Information System</td>
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<tr>
<td>GoI</td>
<td>Government of India</td>
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<tr>
<td>HIE</td>
<td>Health Information Exchange</td>
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<tr>
<td>ICT</td>
<td>Information and Communication Technology</td>
</tr>
<tr>
<td>IEC</td>
<td>Information, Education and Communication</td>
</tr>
<tr>
<td>IEEE</td>
<td>Institute of Electronic &amp; Electrical Engineers</td>
</tr>
<tr>
<td>INR</td>
<td>Indian Rupee</td>
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<tr>
<td>IP</td>
<td>Implementation Partner</td>
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<tr>
<td>Acronym</td>
<td>Full Form</td>
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<tr>
<td>ISO</td>
<td>International Organization for Standardization</td>
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<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>IVR</td>
<td>Interactive Voice Response</td>
</tr>
<tr>
<td>KPI</td>
<td>Key Performance Indicators</td>
</tr>
<tr>
<td>LD</td>
<td>Liquidated Damages</td>
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<tr>
<td>LoA</td>
<td>Letter of Award</td>
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<tr>
<td>LoI</td>
<td>Letter of Intent</td>
</tr>
<tr>
<td>MIS</td>
<td>Management Information System</td>
</tr>
<tr>
<td>MMP</td>
<td>Mission Mode Project</td>
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<tr>
<td>MoHFW</td>
<td>Ministry of Health and Family Welfare, Government of India</td>
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<tr>
<td>MSA</td>
<td>Master Services Agreement</td>
</tr>
<tr>
<td>NCR</td>
<td>National Capital Region</td>
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<tr>
<td>NDA</td>
<td>Non-Disclosure Agreement</td>
</tr>
<tr>
<td>NeGP</td>
<td>National e-Governance Plan</td>
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<tr>
<td>NHM</td>
<td>National Health Mission</td>
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<tr>
<td>NIHFW</td>
<td>National Institute of Health and Family Welfare</td>
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<tr>
<td>NRHM</td>
<td>National Rural Health Mission</td>
</tr>
<tr>
<td>O&amp;M</td>
<td>Operations and Maintenance</td>
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<tr>
<td>OEM</td>
<td>Original Equipment Manufacturer</td>
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<tr>
<td>PAN</td>
<td>Permanent Account Number</td>
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<tr>
<td>PBG</td>
<td>Performance Bank Guarantee</td>
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<tr>
<td>PE</td>
<td>Past Experience</td>
</tr>
<tr>
<td>PHC</td>
<td>Primary Health Centre</td>
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<tr>
<td>PO</td>
<td>Purchase Order</td>
</tr>
<tr>
<td>PoA</td>
<td>Power of Attorney</td>
</tr>
<tr>
<td>PoC</td>
<td>Proof of Concept</td>
</tr>
<tr>
<td>PoP</td>
<td>Point of Presence</td>
</tr>
<tr>
<td>PSU</td>
<td>Public Sector Undertaking</td>
</tr>
<tr>
<td>QAM</td>
<td>Quality Assurance Manager</td>
</tr>
<tr>
<td>QCBS</td>
<td>Quality Cum Cost Based Selection</td>
</tr>
<tr>
<td>RCA</td>
<td>Root Cause Analysis</td>
</tr>
<tr>
<td>RCH</td>
<td>Reproductive and Child Health</td>
</tr>
<tr>
<td>RFE</td>
<td>Request for Empanelment</td>
</tr>
<tr>
<td>RFP</td>
<td>Request for Proposal</td>
</tr>
<tr>
<td>SI</td>
<td>System Integrator</td>
</tr>
<tr>
<td>SLA</td>
<td>Service Level Agreement</td>
</tr>
<tr>
<td>SLR</td>
<td>Service Level Requirements</td>
</tr>
<tr>
<td>SOW</td>
<td>Scope of Work</td>
</tr>
<tr>
<td>T&amp;M</td>
<td>Time and Material</td>
</tr>
<tr>
<td>TB</td>
<td>Technical Bid</td>
</tr>
<tr>
<td>TCO</td>
<td>Total Cost of Ownership</td>
</tr>
<tr>
<td>TL</td>
<td>Team Leader</td>
</tr>
<tr>
<td>ToR</td>
<td>Terms of Reference</td>
</tr>
<tr>
<td>TR</td>
<td>Technical Requirements</td>
</tr>
<tr>
<td>UAT</td>
<td>User Acceptance Test</td>
</tr>
</tbody>
</table>
Contents

1 RFP Document for Integrated Health Information Platform .................................................. 8
  1.1 Fact Sheet ......................................................................................................................... 8
  1.2 Important Dates for RFP ................................................................................................. 9
  1.3 Request for Proposal ....................................................................................................... 9
  1.4 Structure of the RFP ....................................................................................................... 9

2 Background Information ...................................................................................................... 11
  2.1 Basic Information ........................................................................................................... 11
  2.2 Project Background ....................................................................................................... 11
  2.3 Key Stakeholders .......................................................................................................... 12
      2.3.1 About Ministry of Health and Family Welfare ......................................................... 12
      2.3.2 About Centre for Health Informatics ................................................................. 13

3 Instructions to the Bidders ................................................................................................... 14
  3.1 General ........................................................................................................................... 14
  3.2 Compliant Proposals / Completeness of Response .......................................................... 14
  3.3 Pre-Bid Meeting & Clarifications .................................................................................. 14
      3.3.1 Pre-bid Conference ............................................................................................... 14
      3.3.2 Responses to Pre-Bid Queries and Issue of Corrigendum ...................................... 15
  3.4 Key Requirements of the Bid ......................................................................................... 15
      3.4.1 Right to Terminate the Process ............................................................................. 15
      3.4.2 RFP Document Fees ............................................................................................ 15
      3.4.3 Earnest Money Deposit (EMD) ............................................................................. 16
      3.4.4 Submission of Proposals ....................................................................................... 16
      3.4.5 Authentication of Bids .......................................................................................... 17
  3.5 Preparation and Submission of Proposal ....................................................................... 17
      3.5.1 Proposal Preparation Costs .................................................................................... 17
      3.5.2 Language ............................................................................................................... 17
      3.5.3 Venue & Deadline for Submission of Proposals ..................................................... 17
      3.5.4 Late Bids ............................................................................................................... 18
      3.5.5 Deviations ............................................................................................................. 18
      3.5.6 Evaluation Process ............................................................................................... 19
      3.5.7 Tender Opening ..................................................................................................... 19
      3.5.8 Tender Validity ...................................................................................................... 19
      3.5.9 Tender Evaluation ............................................................................................... 19
      3.5.10 Rejection Clause ................................................................................................. 19

4 Criteria for Evaluation ......................................................................................................... 21
  4.1 Pre-Qualification (PQ) Criteria (Stage-1) ...................................................................... 21
  4.2 Technical Qualification Criteria (Stage-2) ..................................................................... 25
      4.2.1 Presentation ............................................................................................................. 26
  4.3 Commercial Bid Evaluation (Stage-3) ........................................................................... 28
4.3.1 Combined and Final Evaluation ........................................................................ 29
5  Appointment of Systems Implementation Agency/Partner ........................................ 30
  5.1 Award Criteria .................................................................................................................. 30
  5.2 Right to Accept Any Proposal and To Reject Any or All Proposal(s) ......................... 30
  5.3 Notification of Award ....................................................................................................... 30
  5.4 Contract Finalization and Award ................................................................................... 30
  5.5 Performance Guarantee .................................................................................................... 30
  5.6 Signing of Contract .......................................................................................................... 31
  5.7 Failure to Agree with the Terms and Conditions of the RFP ........................................ 31
  5.8 Currency of Payments ..................................................................................................... 31
  5.9 Repeat Order .................................................................................................................. 31
  5.10 Completeness of the Project.......................................................................................... 31
  5.11 Canvassing / Contacting ............................................................................................... 31
6  Scope of Work ......................................................................................................................... 32
  6.1 Introduction: .................................................................................................................... 32
  6.1 General Scope of Work ..................................................................................................... 33
  6.2 Functional Scope of Work ............................................................................................... 34
    6.2.1 Electronic Health Record .......................................................................................... 35
    6.2.2 Health Information Exchange .................................................................................. 36
    6.2.3 Registry Services ....................................................................................................... 40
    6.2.4 Portal ........................................................................................................................ 43
    6.2.5 Consent Management .............................................................................................. 45
    6.2.6 Security and Privacy ................................................................................................. 45
    6.2.7 Auditing .................................................................................................................... 45
  6.3 Key Personnel .................................................................................................................... 45
  6.4 Hosting Services ................................................................................................................ 47
    6.4.1 Scalable Environment .............................................................................................. 47
    6.4.2 Service Availability ................................................................................................. 47
    6.4.3 Maintenance ............................................................................................................. 48
    6.4.4 Change Management ............................................................................................... 48
    6.4.5 Systems Environments ............................................................................................ 48
    6.4.6 Facilities Support/Network Operation ....................................................................... 49
    6.4.7 Systems Management .............................................................................................. 50
    6.4.8 Storage Management .............................................................................................. 50
    6.4.9 Architecture and Security ....................................................................................... 50
    6.4.10 Performance Management ..................................................................................... 51
    6.4.11 Disaster Recovery and Business Continuity ............................................................ 52
    6.4.12 Incident Management Process ............................................................................... 52
    6.4.13 System and Data Transition ................................................................................... 52
    6.4.14 Administrative Personnel ....................................................................................... 53
    6.4.15 System Administrative Services ............................................................................. 53
6.4.16 Software Upgrades ........................................................................................................... 53
6.4.17 Data Management ............................................................................................................. 54
6.4.18 Compute Requirement ......................................................................................................... 54
6.4.19 Data Center .......................................................................................................................... 55
6.4.20 Training and Education ...................................................................................................... 55
6.4.21 Helpdesk and Technical Customer Support ......................................................................... 56
6.5 Project Management .................................................................................................................. 57
6.5.1 Project Governance .............................................................................................................. 57
6.6 Roles and Responsibilities ......................................................................................................... 58
6.6.1 Roles and Responsibilities of Bidder .................................................................................... 58
6.6.2 CHI, Ministry of Health and Family Welfare, Government of India ...................................... 58
7 Deliverables, Milestones and Timelines ........................................................................................ 59
8 Payments terms, Service Level Agreement and Penalties .......................................................... 61
8.1 Payment terms .......................................................................................................................... 61
8.1.1 Implementation Phase Payments .......................................................................................... 61
8.1.2 Operation & Maintenance Phase Payments .......................................................................... 61
8.2 Service Level Requirements (SLR) and Penalties ................................................................... 61
8.2.1 General Conditions of SLA ............................................................................................... 62
8.2.2 Level Classifications ........................................................................................................... 62
8.2.3 SLR & Penalties in Implementation Phase ............................................................................ 64
8.2.4 Service Level Requirement for Operation Stage .................................................................... 65
8.2.5 Penalties ................................................................................................................................ 66
9 Acceptance Testing and Go Live ................................................................................................. 68
10 Fraud and Corrupt Practices ...................................................................................................... 69
11 Conflict of Interest ..................................................................................................................... 70
12 Consortium .................................................................................................................................. 72
13 Multiple Responses .................................................................................................................... 73
14 Indemnity .................................................................................................................................... 73
15 Inspection of records ................................................................................................................... 73
16 Publicity ...................................................................................................................................... 74
17 Force Majeure ............................................................................................................................. 74
18 Resolution of disputes ................................................................................................................ 75
19 Waiver ........................................................................................................................................ 76
20 Violation of terms ......................................................................................................................... 76
21 Termination for Default ............................................................................................................. 76
22 Termination for Insolvency ......................................................................................................... 76
23 Termination for Convenience ..................................................................................................... 77
24 Information/Data Ownership ...................................................................................................... 77
25 Copyright Restriction ................................................................................................................. 77
26 Intellectual Property Rights (IPR) ............................................................................................. 77
27 Sensitive Information .................................................................................................................. 78
28 Technological Advancements ..................................................................................................... 78
29 Governing Language ................................................................................................................ 78
<table>
<thead>
<tr>
<th>Page No.</th>
<th>Section Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>Non-Disclosure Agreement</td>
<td>78</td>
</tr>
<tr>
<td>31</td>
<td>Applicable Law</td>
<td>78</td>
</tr>
<tr>
<td>32</td>
<td>Deduction</td>
<td>79</td>
</tr>
<tr>
<td>33</td>
<td>Taxes and Duties</td>
<td>79</td>
</tr>
<tr>
<td>34</td>
<td>No Claim Certificate</td>
<td>79</td>
</tr>
<tr>
<td>35</td>
<td>Limitation of Liability</td>
<td>79</td>
</tr>
<tr>
<td>36</td>
<td>Rights reserved by CHI</td>
<td>79</td>
</tr>
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<td></td>
<td>Annexure-1 for Pre-Qualifications (Stage-1)</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>Annexure-2 for Technical bid (Stage-2)</td>
<td>97</td>
</tr>
<tr>
<td></td>
<td>Annexure-3 Compute Requirements</td>
<td>103</td>
</tr>
<tr>
<td></td>
<td>Annexure-4 Price Schedule</td>
<td>104</td>
</tr>
</tbody>
</table>
# 1 RFP Document for Integrated Health Information Platform

## 1.1 Fact Sheet

<table>
<thead>
<tr>
<th>Clause Reference</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation Method</td>
<td>The method of selection is: QCBS</td>
</tr>
<tr>
<td>Nodal Contact Person</td>
<td>Prof. S. N. Sarbadhikari, Project Director, Centre for Health Informatics, National Institute of Health and Family Welfare, MoHFW, Baba Gangnath Marg, Munirka, New Delhi - 110067 Phone No: 011-26165959, Extn. 328 Email: <a href="mailto:supten@nihfw.org">supten@nihfw.org</a></td>
</tr>
<tr>
<td>Method for obtaining RFP</td>
<td>RFP can be collected from the Nodal Contact Person mentioned above on or before the date and time mentioned in Important Dates for RFP table by paying the tender fee of Rs 10000.00 by Demand Draft in favour of “Director, National Institute of Health &amp; Family Welfare, New Delhi” payable at Delhi from any of the commercial bank OR Downloaded from <a href="http://www.nhp.gov.in">www.nhp.gov.in</a> or <a href="http://www.eprocure.gov.in">www.eprocure.gov.in</a>. However, in this case, the bidders are required to submit the tender fee in the form of a Demand Draft, as per details mentioned above, along with the bid.</td>
</tr>
<tr>
<td>EMD</td>
<td>The bidder shall furnish, as part of its bid, EMD only in the form of Bank Guarantee or Fixed Deposit Receipt drawn in favour of “Director, National Institute of Health &amp; Family Welfare, New Delhi” for an amount of Rs. 25 Lakhs. payable at Delhi. EMD should be valid for a period of 180 days from the last date of submission of the bid. A grace of 15 days may be given to bidder in case of extension of bid. Please refer clause 3.4.3</td>
</tr>
<tr>
<td>Scope of work</td>
<td>The detailed scope of work is provided in Section 6.</td>
</tr>
<tr>
<td>Pre-bid meeting</td>
<td>A pre-bid meeting will be held on date, time and venue mentioned in Important Dates for RFP table. All the queries should be sent to Nodal Contact Person mentioned above on or before date and time mentioned in Important Dates for RFP table either through post or e-mail.</td>
</tr>
<tr>
<td>Language of bid</td>
<td>Bid should be submitted in the English language only.</td>
</tr>
<tr>
<td>Bid validity</td>
<td>Bid must remain valid for 180 days from the last date of submission of the bid</td>
</tr>
<tr>
<td>Bid documents</td>
<td>Bidders must submit</td>
</tr>
<tr>
<td>a.</td>
<td>An original and one additional copy of each bid along with one copy of non-editable CD / DVD for Pre-qualification and Technical bid</td>
</tr>
<tr>
<td>b.</td>
<td>One original copy of the Financial bid</td>
</tr>
<tr>
<td>c.</td>
<td>In case of any variation between soft copy and hard copy, signed hard copy will prevail.</td>
</tr>
<tr>
<td>Bid submission</td>
<td>The bid should be submitted in the Tender Box available at Administrative Block (Near reception Desk), NIHFW in the name of Nodal person mentioned above along with project name.</td>
</tr>
<tr>
<td>Date of bid Submission</td>
<td>Bid must be submitted no later than the date and time mentioned in important Dates for RFP table.</td>
</tr>
</tbody>
</table>
# 1.2 Important Dates for RFP

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Particular</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Start date of issuance / sale of RFP document</td>
<td>3rd January, 2017 at 5:00 PM</td>
</tr>
<tr>
<td>2.</td>
<td>Last date for submission of pre-bid queries</td>
<td>10th January, 2017 up to 2:00 PM</td>
</tr>
<tr>
<td>3.</td>
<td>Pre-bid meeting</td>
<td>12th January, 2017 at 2:00 PM at Committee Room, NIHFW, Munirka</td>
</tr>
<tr>
<td>4.</td>
<td>Last date for issuance / sale of RFP document</td>
<td>23rd January, 2017 up to 5:30 PM</td>
</tr>
<tr>
<td>5.</td>
<td>Last date and time for bid submission</td>
<td>30th January, 2017 up to 3:00 PM</td>
</tr>
<tr>
<td>6.</td>
<td>Date and time of opening of pre-qualification cum technical bids</td>
<td>30th January, 2017 at 3:30 PM</td>
</tr>
<tr>
<td>7.</td>
<td>Presentation by the bidders on the proposed Solution</td>
<td>To be communicated later (within 1 week after opening of the bids)</td>
</tr>
<tr>
<td>8.</td>
<td>Date and time for opening of financial bids</td>
<td>To be communicated later</td>
</tr>
</tbody>
</table>

# 1.3 Request for Proposal

CHI invites sealed bids from eligible, reputed, qualified entities with sound technical and financial capabilities for design, development, implementation and maintenance of Integrated Health Information Platform (IHIP) as detailed out in the Scope of Work of this RFP document. This invitation to bid is open to all bidders meeting the minimum eligibility criteria as mentioned in section 4 of this RFP document.

# 1.4 Structure of the RFP

This Request for Proposal (RFP) document for Development & Implementation of Integrated Health Information Platform (IHIP) for Ministry of Health and Family Welfare (MoHFW) comprise of the following.

1. Instructions on the Bid process for responding to this RFP. This broadly covers:
   a. General instructions for bidding process
   b. Bid evaluation process including the parameters for Pre-qualification, Technical evaluation and commercial evaluation to facilitate CHI in determining bidder’s suitability as the implementation partner
   c. Payment schedule
   d. Commercial bid and other formats

2. Functional Requirements of the project. The contents of the document broadly covers the following areas:
   a. About the project and its objectives
   b. Scope of work for the Implementation Partner
   c. Functional and Technical requirements
   d. Project Schedule
   e. Service levels for the implementation partner

The bidder is expected to respond to the requirements as completely and in as much relevant detail as possible and focus on demonstrating bidder’s suitability to become the SUCCESSFUL BIDDER of Centre for Health Informatics, National Institute of Health and Family Welfare, Ministry of Health & Family Welfare.
The bidders are expected to examine all instructions, forms, terms, project requirements and other information in the RFP document. Failure to furnish all information required as mentioned in the RFP document or submission of a bid not substantially responsive to the RFP document in every respect will be at the bidder’s risk and may result in rejection of the bid.
2 Background Information

2.1 Basic Information

1. CHI invites responses ("Tenders") to this Request for Proposals ("RFP") from Systems Implementation Agencies/Partners ("Bidders") for the as described in Section “Scope of Work”.

2. Any contract that may result from this Government procurement competition will be issued for a term of five years from the date of GO-Live ("the Term").

3. The CHI reserves the right to extend the Term for a period or periods of up to 2 years with a maximum of 2 such extension or extensions on the same terms and conditions, subject to the CHI obligations at law.

4. Proposals must be received not later than time, date and venue mentioned in RFP.

5. Sheet Proposals that are received late WILL NOT be considered in this procurement process.

2.2 Project Background

Our world has been radically transformed by digital technology – smart phones, tablets, and web-enabled devices have transformed our daily lives and the way we communicate. Medicine is an information-rich enterprise. A greater and more seamless flow of information within a digital health care infrastructure, created by electronic health records (EHRs), encompasses and leverages digital progress and can transform the way care is delivered and compensated. Indian healthcare system is diverse in nature. At one end of the spectrum there are single doctor clinical establishments, on the other end of the spectrum there are large public and private sector super-speciality hospitals. The large corporate hospitals are increasingly moving towards maintaining Electronic Health Records (EHR) of their patients. However, these systems are highly fragmented and use multiple information technology systems. Consequently, a patient’s health information often gets trapped in silos of legacy systems, unable to be shared with other system and establishments.

On a firm view to provide electronics health records to every citizens of country, Government of India intends to introduce a uniform system for maintenance of Electronic Medical Records / Electronic Health Records (EMR / EHR) by the Hospitals and healthcare providers in the country. An Expert committee was set up to develop EMR / EHR Standards for adoption / implementation in the country. In March 2014 India became a Member of IHTSDO, joining a global effort to develop, maintain, and enable the use of SNOMED CT in health systems around the world.

To provide interoperability of various EHR systems already implemented, An Integrated Health Information Platform (IHIP) is being setup by the Ministry of Health and Family Welfare (MoHFW). The primary objective of IHIP is to enable the creation of standards compliant Electronic Health Records (EHRs) of the citizens on a pan-India basis along with the integration and interoperability of the EHRs through a comprehensive Health Information Exchange (HIE) as part of this centralized accessible platform. IHIP is envisaged to enable better continuity of care, secure and confidential health data/records management, better diagnosis of diseases, reduction in patient re-visits and even prevention of medical errors, better affordability, optimal information exchange to support better health outcome, better decision support
system, and thus eventually facilitating improvement in the reforms of treatment and care of public health at National-Level.

IHIP can help India to:

**Improve Health Care Quality:** Improve health care quality and patient outcomes by reducing medication and medical errors

**Make Care More Efficient:** Reduce unnecessary tests and services and improve the efficiency of care by ensuring everyone involved in a patient’s care has access to the same information

**Streamline Administrative Tasks:** Reduce administrative costs by making many administrative tasks simpler and more efficient

**Engage Patients:** Increase patient involvement in their own health care and reduce the amount of time patients spend filling out paperwork and briefing providers on their medical histories

**Support Community Health:** Coordinate with and support public health officials to improve the health of your community

Electronic exchange of clinical information allows doctors, nurses, pharmacists, other health care providers, and patients to access and securely share a patient’s vital medical information electronically—improving the speed, quality, safety, coordination, and cost of patient care.

**Expected benefits from IHIP**

HIE benefits include:

- Provides a vehicle for improving quality and safety of patient care by reducing medication and medical errors
- Stimulates consumer education and patients' involvement in their own health care
- Increases efficiency by eliminating unnecessary paperwork
- Provides caregivers with clinical decision support tools for more effective care and treatment
- Eliminates redundant or unnecessary testing
- Improves public health reporting and monitoring
- Creates a potential loop for feedback between health-related research and actual practice
- Facilitates efficient deployment of emerging technology and health care services
- Provides the backbone of technical infrastructure for leverage by national and State-level initiatives
- Provides a basic level of interoperability among electronic health records (EHRs) maintained by individual physicians and organizations
- Reduces health related costs

**2.3 Key Stakeholders**

**2.3.1 About Ministry of Health and Family Welfare**

The Ministry of Health and Family Welfare (MoHFW) is the apex governmental body responsible for implementation of national health programmes running in India in the areas of family welfare, public health, prevention and control of major communicable diseases, promotion of traditional and indigenous systems of medicines etc.
MoHFW looks after the overall health situation in the country and is responsible for areas that have a wide impact on the aspects of public health and medical services in the country, e.g. population control, medical education, prevention of food adulteration, quality control in manufacture and sale of drugs etc.

The key functions / services performed by the MoHFW include:

1. Visioning, policy making on health related aspects in the country
2. Designing and planning (centre and State / UT level) of national health programs
3. Performance monitoring of programs being implemented by the States / UTs
4. Financial disbursals to States / UTs and management (for the programs)
5. Providing inputs on medical education and curative care
6. Health research, setting food and drug standards and infrastructure
7. Providing health care services to central government employees and pensioners
8. Health manpower development and setting norms
9. International health regulations and treaties
10. Supervising sub-ordinate offices.

2.3.2 About Centre for Health Informatics
Centre for Health Informatics under the aegis of Ministry of Health and Family Welfare will undertake the activity of implementation of Integrated Health Information Platform (IHIP) to provide interoperability of various EHR systems already implemented. Centre for Health Informatics (CHI) has undertaken various activities relating to e-Governance/e-Health for improving the efficiency and effectiveness of healthcare system. CHI is progressively planning several new initiatives to be implemented in the near future for promotion of healthcare system across the country.
3 Instructions to the Bidders

3.1 General

1. While every effort has been made to provide comprehensive and accurate background information, requirements, and specifications, Bidders must form their own conclusions about the solution needed to meet the requirements. Bidders and recipients of this RFP may wish to consult their own legal advisers in relation to this RFP.

2. All information supplied by Bidders may be treated as contractually binding on the Bidders, on successful award of the assignment by the CHI on the basis of this RFP.

3. No commitment of any kind, contractual or otherwise shall exist unless and until a formal written contract has been executed by or on behalf of the CHI. Any notification of preferred bidder status by the CHI shall not give rise to any enforceable rights by the Bidder. The CHI may cancel this public procurement at any time prior to a formal written contract being executed by or on behalf of the CHI.

4. This RFP supersedes and replaces any previous public documentation & communications, and Bidders should place no reliance on such communications.

3.2 Compliant Proposals / Completeness of Response

1. Bidders are advised to study all instructions, forms, terms, requirements and other information in the RFP documents carefully. Submission of the bid shall be deemed to have been done after careful study and examination of the RFP document with full understanding of its implications.

2. Failure to comply with the requirements of this paragraph may render the Proposal non-compliant and the Proposal may be rejected. Bidders must:
   a. Include all documentation specified in this RFP;
   b. Follow the format of this RFP and respond to each element in the order as set out in this RFP
   c. Comply with all requirements as set out within this RFP.

3.3 Pre-Bid Meeting & Clarifications

3.3.1 Pre-bid Conference

1. CHI shall hold a pre-bid meeting with the prospective bidders on 12th January, 2017 at 2:00 PM at Conference hall, NIHFW, Munirka, New Delhi.

2. The Bidders will have to ensure that their queries for Pre-Bid meeting should reach to:
   Prof. S. N. Sarbadhikari,
   Project Director, Centre for Health Informatics,
   Email: supten@nihfw.org by post or email on or before 10th January, 2017 at 2:00 PM

3. The queries should necessarily be submitted in the following format:
3.3.2 Responses to Pre-Bid Queries and Issue of Corrigendum

1. The Nodal Officer notified by the CHI will endeavor to provide timely response to all queries. However, CHI makes no representation or warranty as to the completeness or accuracy of any response made in good faith, nor does CHI undertake to answer all the queries that have been posed by the bidders.

2. At any time prior to the last date for receipt of bids, CHI may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the RFP Document by a corrigendum.

3. The Corrigendum (if any) & clarifications to the queries from all bidders will be posted on the www.nhp.gov.in & www.eprocure.gov.in.

4. Any such corrigendum shall be deemed to be incorporated into this RFP.

5. In order to provide prospective Bidders reasonable time for taking the corrigendum into account, CHI may, at its discretion, extend the last date for the receipt of Proposals.

3.4 Key Requirements of the Bid

3.4.1 Right to Terminate the Process

CHI may terminate the RFP process at any time and without assigning any reason. CHI makes no commitments, express or implied, that this process will result in a business transaction with anyone.

3.4.2 RFP Document Fees

1. RFP document can be purchased at the address & dates provided in the Fact sheet by submitting a non refundable bank demand draft of Rs. 10,000, drawn in favor of Director NIHFW, payable at New Delhi from any scheduled commercial banks.

2. The bidder may also download the RFP documents from the website www.nhp.gov.in & www.eprocure.gov.in. Insuch case, the demand draft of RFP document fees should be submitted...
along with Proposal. Proposals received without or with inadequate RFP Document fees shall be rejected.

3.4.3 Earnest Money Deposit (EMD)

1. Bidders shall submit, along with their Bids, EMD of Rs. 25 Lakhs only, in the form of Bank Guarantee or Fixed Deposit (in the format specified in Annexure -1: Form 3) issued by any nationalized bank in favor of Director, National Institute of Health & Family Welfare, New Delhi and should be valid for 6 months from the last date of submission of the tender / RFP.

2. EMD of all unsuccessful bidders would be refunded by CHI within 30 days of the bidder being notified as being unsuccessful. The EMD, for the amount mentioned above, of successful bidder would be returned upon submission of Performance Bank Guarantee as per the format provided in Annexure -1: Form 3.

3. The EMD amount is interest free and will be refundable to the unsuccessful bidders without any accrued interest on it.

4. Grace of 15 days on the duration of validity of EMD will be given to bidder in case, where the last day of bid submission will be extended and bidder has already made the EMD.

5. The bid / proposal submitted without EMD, mentioned above, will be summarily rejected.

6. The EMD may be forfeited:
   • If a bidder withdraws its bid during the period of bid validity.
   • In case of a successful bidder, if the bidder fails to sign the contract in accordance with this RFP.

3.4.4 Submission of Proposals

1. The bidders should submit their responses as per the format given in this RFP in the following manner
   • Response to Pre-Qualification Criterion : (1 Original + <1> Copies +<1>CD) in first envelope
   • Technical Proposal - (1 Original + <1> Copies +<1>CD) in second envelope
   • Commercial Proposal - (1 Original) in third envelope
   Any con-conformity to these 3 bids will make the proposal unworthy.

2. The Response to Pre-Qualification criterion, Technical Proposal and Commercial Proposal (As mentioned in previous paragraph) should be covered in separate sealed envelopes superscribing “Pre-Qualification Proposal”, "Technical Proposal" and “Commercial Proposal” respectively. Each copy of each bid should also be marked as "Original" OR "Copy" as the case may be.

3. Please Note that Prices should not be indicated in the Pre-Qualification Proposal or Technical Proposal but should only be indicated in the Commercial Proposal.

4. The three envelopes containing copies of Pre-qualification Proposal, Technical Proposal and Commercial Proposal should be put in another single sealed envelope clearly marked “Response to RFP for Development & Implementation of Integrated Health Information Platform (IHIP)- < RFP Reference Number> and the wordings “DO NOT OPEN BEFORE 30th January, 2017 at 3:30 PM".
5. The outer envelope thus prepared should also indicate clearly the name, address, telephone number, E-mail ID and fax number of the bidder to enable the Bid to be returned unopened in case it is declared "Late".

6. All the pages of the proposal must be properly binded, sequentially numbered and must contain the list of contents with page numbers. Any deficiency in the documentation may result in the rejection of the Bid. Loose bid or improperly binded bid will be rejected.

7. The original proposal/bid shall be prepared in indelible ink. It shall contain no interlineations or overwriting, except as necessary to correct errors made by the bidder itself. Any such corrections must be initialed by the person (or persons) who sign(s) the proposals.

8. All pages of the bid including the duplicate copies, shall be initialed and stamped by the person or persons who sign the bid.

9. In case of any discrepancy observed by CHI in the contents of the submitted original paper bid documents with respective copies, the information furnished on original paper bid document will prevail over others.

10. Bidder must ensure that the information furnished by him in respective CDs is identical to that submitted by him in the original paper bid document. In case of any discrepancy observed by CHI in the contents of the CDs and original paper bid documents, the information furnished on original paper bid document will prevail over the soft copy.

3.4.5 Authentication of Bids
A Proposal should be accompanied by a power-of-attorney in the name of the signatory of the Proposal.

3.5 Preparation and Submission of Proposal

3.5.1 Proposal Preparation Costs
The bidder shall be responsible for all costs incurred in connection with participation in the RFP process, including, but not limited to, costs incurred in conduct of informative and other diligence activities, participation in meetings/discussions/presentations, preparation of proposal, in providing any additional information required by CHI to facilitate the evaluation process, and in negotiating a definitive contract or all such activities related to the bid process.

CHI will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

3.5.2 Language

The Proposal should be filled by the Bidder in English language only. If any supporting documents submitted are in any language other than English, translation of the same in English language is to be duly attested by the Bidders. For purposes of interpretation of the Proposal, the English translation shall govern.

3.5.3 Venue & Deadline for Submission of Proposals

Proposals, in its complete form in all respects as specified in the RFP, must be submitted to CHI at the address specified below:

---

Centre for Health Informatics, NIHFW, Ministry of Health and Family Welfare
Note: The document should be submitted in the tender box available at reception desk, Administrative Block, NIHFW

3.5.4 Late Bids

1. Bids received after the due date and the specified time (including the extended period if any) for any reason whatsoever, shall not be entertained and shall be returned unopened.
2. The bids submitted by telex/telegram/fax/e-mail etc. shall not be considered. No correspondence will be entertained on this matter.
3. CHI shall not be responsible for any postal delay or non-receipt/non-delivery of the documents. No further correspondence on the subject will be entertained.
4. CHI reserves the right to modify and amend any of the above-stipulated condition/criterion depending upon project priorities vis-à-vis urgent commitments.

3.5.5 Deviations

The bidder may provide deviation to the contents of the RFP document. It may be noted that once the deviation are provided, the bidder would not be allowed to withdraw the deviation submitted.

The Technical Evaluation Committee (TEC) would evaluate and classify them as “material deviation” or “non material deviation”. In case of material deviation, the committee may decide to “monetize” the value of the deviations, which will be added to the price bid submitted by the bidder OR declare the bid as non-responsive.

<table>
<thead>
<tr>
<th>No.</th>
<th>Deviation</th>
<th>Material</th>
<th>Non-Material</th>
<th>Impacted Deliverable(s)</th>
<th>Impacted Timeline(s)</th>
<th>Financial Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>&lt;Deviation description&gt;</td>
<td>&lt;Yes / No&gt;</td>
<td>&lt;Yes / No&gt;</td>
<td>&lt;Name(s) of Deliverables to get affected by the Deviation&gt;</td>
<td>&lt;Effect on Timelines due to the Deviation&gt;</td>
<td>&lt;Value&gt;</td>
</tr>
<tr>
<td>2.</td>
<td>&lt;Deviation description&gt;</td>
<td>&lt;Yes / No&gt;</td>
<td>&lt;Yes / No&gt;</td>
<td>&lt;Name(s) of Deliverables to get affected by the Deviation&gt;</td>
<td>&lt;Effect on Timelines due to the Deviation&gt;</td>
<td>&lt;Value&gt;</td>
</tr>
</tbody>
</table>

The bidders would be informed in writing on the committee’s decision on the deviation, prior to the announcement of technical scores. The bidders would not be allowed to withdraw the deviations at this stage. No correspondence in this matter will be entertained.

In case of non-material deviations, the deviations would form a part of the proposal & contract.
3.5.6 Evaluation Process

1. CHI will constitute a Technical Evaluation Committee (TEC) to evaluate the responses of the bidders
2. The Technical Evaluation Committee (TEC) constituted by the CHI shall evaluate the responses to the RFP and all supporting documents / documentary evidence. Inability to submit requisite supporting documents / documentary evidence, may lead to rejection.
3. The decision of the Technical Evaluation Committee (TEC) in the evaluation of responses to the RFP shall be final. No correspondence will be entertained outside the process of negotiation/discussion with the Committee.
4. The TEC may ask for meetings with the Bidders to seek clarifications on their proposals.
5. The TEC reserves the right to reject any or all proposals on the basis of any deviations.
6. Each of the responses shall be evaluated as per the criterions and requirements specified in this RFP.

3.5.7 Tender Opening

The Proposals submitted up to 3:00 PM on 30th January, 2017 will be opened at 3:30 PM on 30th January, 2017 by Nodal officer or any other officer authorized by CHI, in the presence of such of those Bidders or their representatives who may be present at the time of opening.

The representatives of the bidders should be advised to carry the identity card or a letter of authority from the tendering firms to identify their bonafides for attending the opening of the proposal.

3.5.8 Tender Validity

The offer submitted by the Bidders should be valid for minimum period of 180 days from the date of submission of Tender.

3.5.9 Tender Evaluation

1. Initial Bid scrutiny will be held and incomplete details as given below will be treated as non-responsive, if Proposals :
   a. Are not submitted in as specified in the RFP document
   b. Received without the Letter of Authorization (Power of Attorney)
   c. Are found with suppression of details
   d. With incomplete information, subjective, conditional offers and partial offers submitted
   e. Submitted without the documents requested in the checklist
   f. Have non-compliance of any of the clauses stipulated in the RFP
   g. With lesser validity period, however if requested, grace period of 15 days may be allowed.
2. All responsive Bids will be considered for further processing as below:
   CHI will prepare a list of responsive bidders, who comply with all the Terms and Conditions of the Tender. All eligible bids will be considered for further evaluation by a Committee according to the Evaluation process defined in this RFP document. The decision of the Committee will be final in this regard.

3.5.10 Rejection Clause

1. The Proposal has to be submitted in the form of printed document. The Proposals submitted by Telex, fax or email shall not be entertained.
2. Any condition put forth by the agency non-conforming to the Proposal requirements shall not be entertained at all and such Proposal shall be rejected.

3. If a Proposal is not responsive and not fulfilling the conditions it will be rejected by CHI and shall not subsequently be accepted even if it is made responsive by the agency by correction of the non-conformity. No further communication will be made in the regards.
4 Criteria for Evaluation

The objective of the evaluation process is to evaluate the bids to select an effective and best fit Service at a competitive price. The evaluation will be undertaken by Technical Evaluation Committee (TEC). The TEC may consider recommendations made by external experts/consultants. The decision of TEC shall be final.

TEC will scrutinize the offers to determine whether they are complete, whether any errors have been made in the offer, whether required technical documentation has been furnished, whether the documents have been properly signed, and whether items are quoted as per the required format.

TEC may call for any clarifications/additional particulars required, if any, on the technical/commercial bids submitted. The bidder has to submit the clarifications/additional particulars in writing within the specified date and time. The bidder’s offer may be disqualified, if the clarifications/additional particulars sought are not submitted within the specified date and time.

The competitive bids shall be evaluated in the following stages:

- Stage 1 – Pre-Qualification (PQ) Criteria
- Stage 2 – Technical Qualification Criteria (Technical Bid)
- Stage 3 – Commercial Bid

Based upon the final technical scoring, short listing would be made of the eligible bidders for final commercial evaluation.

4.1 Pre-Qualification (PQ) Criteria (Stage-1)

TEC will evaluate the Bidders on each criteria separately and satisfy itself beyond doubt on the Bidder’s ability/position to meet the criteria. Those Bidders who qualify on ALL the criteria as brought out in table below will only be considered as “Qualified under Stage 1” of evaluation and will be considered for evaluation under Stage-2.

Those Bidders who do not qualify at this Stage 1 will not be considered for any further processing. The EMD money in respect of such Bidders will be returned on declaration of Successful Bidder. It is therefore advised that only those Bidders who are sure of meeting all the eligibility criteria, respond to this RFP process.

Evaluation of eligibility criteria will be as per the information/response provided by the bidder and the supporting documents as mentioned below.

<table>
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<tr>
<th>S. No.</th>
<th>Prequalification Criteria</th>
<th>Proof Required</th>
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</table>
| 1.     | **Overall Turnover**      | • Audited financial statements (reflecting overall turnover)/ annual report containing financial statement for the last three financial years  
• A certificate duly certified by the statutory auditor/CA of the bidder clearly mentioning the average annual turnover of the bidder from Software services.  
As per Annexure-1, Form – 4 enclosed |
| 2. | **Overall Turnover in Case of Consortium** | • Audited financial statements (reflecting overall turnover)/ annual report containing financial statement for the last three financial years  
• A certificate duly certified by the statutory auditor/CA of the bidder clearly mentioning the average annual turnover of the bidder/consortium members from Software services.  
**Note:** In case turnover in foreign currency, the value should be shown in INR as per the conversion rate prevailing at that time. As per Annexure-1, Form – 4 enclosed |

In case of consortium, average annual turnover of lead bidder should be as per Sr.no-1 and each member of the consortium during the last three financial years 2013-14, 2014-15, 2015-16 (as per the published Income Statement) should have an average turnover of 5 crore in Software design, development and deployment Services. |

| 3. | **Turnover from HIE Implementation** | • Audited financial statements (reflecting overall turnover)/ annual report containing financial statement for the last Five financial years  
• A certificate duly certified by the statutory auditor/CA of the bidder clearly mentioning the average annual turnover of the bidder supported by work order/client certificate As per Annexure-1, Form – 4 enclosed  
**Note:** In case turnover in foreign currency, the value should be shown in INR as per the conversion rate prevailing at that time. As per Annexure-1, Form – 4 enclosed |

In case of Sole bidder, the bidder should also have a minimum INR 10 crore turnover from Health Information Exchange business (Only Software Components) in the last five financial years ending 31st March 2016 (as per the published Income Statement).  

In case of Consortium, at least one consortium member should have INR 10 Crore turnover in the last 5 financial years ending 31st March 2016(in Health Information Exchange business (Only Software Components)). |

| 4. | **HIE Experience** | Work order + Completion Certificates from the client + Phase completion certificate (For ongoing projects) from the client.  
In case of phased completion, design, development, integration, deployment and one year post deployment should be completed which should include integration and exchange of at least two different EHR/HIS system.  
As per Annexure-1, Form - 5 enclosed |

The Proponent (Company/Consortium) must have a proven capability in design, development, integration, implementation, operations and maintenance of “Live” HIE systems across large hospitals or networks of Hospitals / healthcare facilities.  
HIE Project means data exchange between different types of EHRs/HIS connecting various hospitals which comprises of registry services, data services, clinical data repository, citizen/provider health portal etc.  
Exchange of data/records only within a network/chain/group of associated hospitals/healthcare service providers will be considered only in case of exchange of disparate/different EHRs/HIS. |

| 5. | • The Company/Consortium members taken together must have executed projects of total value (excluding hardware) in design, development, integration, implementation, operations and maintenance of HIE or other eHealth Solutions (i.e. HIS, EMR, EHR, HMIS) in last seven years (ending 31st March 2016) as mentioned below:-  
1. One similar completed work costing not less than 20 Crores.  
   or  
2. Two similar completed work costing not less than 15 Crore each.  
   or  
   Work order + Completion Certificates from the client, + Phase completion certificate (For ongoing projects) from the client. The total cost of the each project separately.  
**Note-1:** Only software development along with maintenance plus support cost will be considered. Hardware, hosting or any other such cost will not be considered.  
**Note-2:** Phase completion experience-  
In case of eHealth Solutions other than HIE-Design, development, integration and deployment and one year post deployment to |

The Company/Consortium members taken together must have executed projects of total value (excluding hardware) in design, development, integration, implementation, operations and maintenance of HIE or other eHealth Solutions (i.e. HIS, EMR, EHR, HMIS) in last seven years (ending 31st March 2016) as mentioned below:-  
1. One similar completed work costing not less than 20 Crores.  
   or  
2. Two similar completed work costing not less than 15 Crore each.  
   or  
   Work order + Completion Certificates from the client, + Phase completion certificate (For ongoing projects) from the client. The total cost of the each project separately.  
**Note-1:** Only software development along with maintenance plus support cost will be considered. Hardware, hosting or any other such cost will not be considered.  
**Note-2:** Phase completion experience-  
In case of eHealth Solutions other than HIE-Design, development, integration and deployment and one year post deployment to
3. Three similar completed work costing not less than 10 Crore each.

be completed for eHealth solution projects would be considered.
In case of HIE- design, development, integration, deployment and one year post deployment will be considered which should include integration and exchange of at least two different EHR/HIS system.

Note-3. In case of foreign currency projects, the project value should be shown in INR as per the conversion rate prevailing at the time of award of the respective work order.

As per Annexure-1, Form - 5 enclosed

<p>| | |</p>
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<tr>
<td>6. The Company / Lead Proponent (in case of consortium) should be an entity registered in India under the Company Act, 1956 (or) a firm registered under the Limited Liability Partnership Act, 2008 (or) a firm registered in India under the Partnership Act, 1932 for last 5 years as on 31st March, 2016, and must have a registered office in India which should be in operation as on 31st March, 2016. In case of consortium, non-lead members should be registered entity (in/outside India).</td>
<td>Copy of Certificate of Incorporation / Registration</td>
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<tr>
<td></td>
<td>In case of a consortium, the Lead Proponent would need to submit an agreement with the other members of consortium (i.e. Consortium Agreement) for the contract clearly indicating the division of work and their relationship.</td>
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<td></td>
<td>In case of non-lead member(s) of Consortium being registered outside India, all the documents required to be submitted (as mentioned in RFP) for such members should form part of the Consortium Agreement executed and should be duly authenticated by the Lead Proponent of the consortium.</td>
</tr>
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<td></td>
<td>As per Annexure-1, Form – 6 enclosed</td>
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<tr>
<td>7. Bidder (each member in case of consortium) should have a positive Net Worth as on 31st March 2016 or at the closing of the previous financial year.</td>
<td>• Statutory Auditor’s certificate, and certificate of Audited Profit and Loss Statement and Balance Sheet</td>
</tr>
<tr>
<td></td>
<td>• Annual report of the bidder’s company containing financial statement (Profit and Loss Statement and Balance Sheet)</td>
</tr>
<tr>
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<td>As per Annexure-1, Form – 7 enclosed</td>
</tr>
<tr>
<td>8. The Company / Consortium Members should have a valid Service Tax Registration and Income Tax returns and PAN card.</td>
<td>• Copy of Service Tax Registration</td>
</tr>
<tr>
<td></td>
<td>• Income Tax returns for last 3 financial years (till 2015-16)</td>
</tr>
<tr>
<td></td>
<td>• Statutory Audit report from CA for last 3 financial years(till 2015-16)</td>
</tr>
<tr>
<td></td>
<td>• Copy of PAN card</td>
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<tr>
<td></td>
<td>In case of non-lead member(s) of Consortium being registered outside India, the valid equivalent documents (for Service Tax Registration, Income Tax returns, Income Tax registration) should be submitted.</td>
</tr>
<tr>
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<td>As per Annexure-1, Form – 6 enclosed</td>
</tr>
<tr>
<td>9. As on date of submission of the bid, the bidder should not be blacklisted by any Government entity in India (in case of consortium, none of the members should be blacklisted by any Government entity in India)</td>
<td>Certificate duly signed by authorised signatory</td>
</tr>
<tr>
<td></td>
<td>In case of Consortium, each member of the consortium is required to submit the certificate.</td>
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<td></td>
<td>As per Annexure-1, Form – 8 enclosed</td>
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<tr>
<td><strong>10.</strong></td>
<td><strong>Lead Bidder</strong> should be a CMMI Level 3 Certified Copy of the valid certificate from authorized certification agency</td>
</tr>
<tr>
<td><strong>11.</strong></td>
<td><strong>Bidder should provide an undertaking for providing adequate data and information security.</strong> As per Annexure-1, Form-9 Undertaking for Data and Information and Security</td>
</tr>
<tr>
<td><strong>12.</strong></td>
<td><strong>Letter of authorization from OEM</strong> The bidder should be an OEM and/or Original Software Developer (for system software, database, etc.) or their authorized representative. In case of authorized representative, a letter of authorization from original manufacturer must be furnished.) As per Annexure-1, Form-10</td>
</tr>
</tbody>
</table>

**Note:**

Bidders need to ensure compliance to all the eligibility criteria points.
The decision of the TEC shall be final and binding in this regard

*The Bidders meeting all eligibility criteria of Stage-1 will be shortlisted for the Stage-2 – Technical Proposal Evaluation.*
4.2 Technical Qualification Criteria (Stage-2)

This evaluation will be carried out on a total score of 100 on the basis of the following evaluation parameters defined in this section.
The evaluation methodology is further broken down into sub areas as under.

<table>
<thead>
<tr>
<th>S.no</th>
<th>Evaluation Criteria</th>
<th>Description</th>
<th>Maximum Marks</th>
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</table>
| 1    | **Turnover of the Lead Bidder** | Average Turnover of the lead bidder in FY(2013-14), (2014-15)& (2015-16) from design, development and deployment of software services | Turnover slab  
≥ 30 Cr. < 50 Cr. = 07 marks  
≥ 50 Cr. < 75 Cr. = 08 marks  
≥ 75 Cr. < 100 Cr. = 09 marks  
≥ 100 Cr. = 10 marks | 10 |
| 2    | **HIE Project Experience** (Lead bidder/consortium partner)  
HIE Project involving design, development, integration and deployment worth minimum 10 crores each in software components only in last 7 years.  
Each HIE Project should also have minimum:  
1. 10 EHR Instances implementations connected with HIE  
2. 1 Lakh unique patient records (in format as per the EHR Standards and being compatible for aggregation, semantic interoperability etc.)  
3. 1000 Providers (Users) | Each project of similar nature carry 10 marks.  
Max 3 projects  
HIE Project means data exchange between different types of EHRs connecting various hospitals which comprises of registry services, data services, clinical data repository, citizen/provider health portal etc.  
Bidder has to provide details as per Annexure-2 Form-1 | 30 |
| 3    | **Overall Health IT business Experience** (other than project submitted in point 2, at least one project should be of HIS/EHR)  
(Leadbidder/consortium partner) Health IT Project worth minimum10 crores each in software components in the last 7 years in the following area:-  
HIS/HMIS/EHR/EMR. | Each project of similar nature follows below( for each Project).  
≥ 10 Cr. < 15 Cr. = 7.5 marks  
≥ 15 Cr. <20 Cr. = 10 marks  
≥ 20 Cr. = 15 marks  
Bidder has to provide details as per Annexure-2 Form-1 | 30 |


<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Marks</th>
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<tbody>
<tr>
<td>4</td>
<td>Presentation on suitability of Solution Proposed</td>
<td>As per section 4.2.1.2</td>
</tr>
<tr>
<td>5</td>
<td>Total Marks</td>
<td>100</td>
</tr>
</tbody>
</table>

Any critical noncompliance/deviations may lead to disqualification of the Bidder. Bidder has to achieve 70% of the total technical score to qualify for stage 3 assessment. However bidder has to score minimum 10 marks in the SN 2 (HIE Project Experience) of above table.

Only those bidders who qualify through the Stage 2 - Technical evaluation stage will be short listed for commercial evaluation.

In addition, TEC may, at its sole discretion decide to seek more information from the bidders in order to normalize the bids. However, bidders will be notified separately if such normalization exercise is resorted to.

### 4.2.1 Presentation

Adequacy of the proposal and experience in implementation and maintenance of Health Information Exchange of the bidder will be evaluated by presentation. TEC may consider recommendations made by external experts.

TEC will schedule the presentations and intimate the bidders of the time and locations. Failure of a bidder to complete a scheduled presentation may result in the rejection of that Bidder’s proposal.

1. The committee may invite each bidder, to make a presentation to the TEC at a date, time and venue determined by TEC to make a presentation of their Technical Proposal. The purpose of such presentations would be to allow the bidders to present their methodology, unique capabilities if any, the project plan and governance structure and the quality of the project team etc.
2. The presentation of the Technical Proposal should be made by the proposed Program/project manager of the bidder for this Project with some of the key team members to support the project manager as part of the presentation team, instead of the sales representative or the senior executive of the organization.
3. The presentation of the technical proposal should also cover demonstration of the proposed IHIP solution highlighting the technical requirements of MoHFW and to validate the specific technical specifications.
4. The bidders are expected to bear the cost of travel or any other associated cost incurred for the purpose of making these presentations.

The presentation is broadly divided into two parts & bidder should make separate presentation of the topics mentioned below:-

#### 4.2.1.1 HIE Project Deployment Experience

Bidder has to demonstrate the capability in deployment and maintenance of Health information Exchange successfully running in any part of the world. It is suggested that bidder should choose one best Live HIE project which is successful in exchanging different types of EHRs connecting various hospitals, which comprises of registry services, data services, clinical data repository, citizen/provider health portal etc.
The bidder may leverage the form-1 at annexure-2 in order to prepare the presentation. All mandatory documents to support the work experience should also be submitted by bidder along with bid. Bidder may also furnish additional information in order to provide more clarity in the existing solution.

4.2.1.2 Suitability of Solution Proposed

The Bids will be evaluated on the flowing parameters for project approach & methodology taking into consideration his response received in Technical Bid and his presentation before the Technical Evaluation Committee (TEC).

1. Detailed Architecture of IHIP
2. Overall Implementation Approach with integration of disparate data system
3. Product Features
4. Value addition Proposed to IHIP Solution
5. Governance structure, Policies, Protocols, guidelines for implementation of IHIP
4.3 Commercial Bid Evaluation (Stage-3)

1. The Financial Bids of technically qualified bidders will be opened on the prescribed date in the presence of bidders’ representatives.

2. The Discounted Cash Flow (DCF) method will be used to arrive at the Present value to compare different payment terms to the System Integrators so as to bring them to a common denomination for determining lowest bidder.

3. The CHI/MoHFW will evaluate the offers received by adopting Discounted Cash Flow (DCF) method with a discounting rate in consonance with the existing government borrowing rate. DCF method would be used for evaluation of bids.

4. Detailed modalities for applying DCF technique are as below:
   a. Net Present Value (NPV) method will be used for evaluation of the Commercial Offer. The Net Present Value of a contract is equal to the sum of the present values of all the cash flows associated with it. The formula for calculating NPV of a Commercial Offer is illustrated below.
   b. MoHFW will evaluate the offers received by adopting Discounted Cash Flow (NPV) method with a discounting rate of 9%.
   c. NPV will be calculated on the annual cash outflows.

5. The NPV of financial bid will be calculated using the formula below:

   \[ \text{NPV} = C_0 + \frac{C_1}{(1+r)^1} + \frac{C_2}{(1+r)^2} + \frac{C_3}{(1+r)^3} + \frac{C_4}{(1+r)^4} \]

   Where,
   
   \( C_0 = 0.8A \)
   
   \( C_1 = 0.05A + B_1 \)
   
   \( C_2 = 0.05A + B_2 \)
   
   \( C_3 = 0.05A + B_3 \)
   
   \( C_4 = 0.05A + B_4 \)
   
   \( A = \text{Total Cost of the implementation phase (design, development and integration)} \)
   
   \( B_1 = \text{Post implementation operation and maintenance cost for year 1;} \)
   
   \( B_2 = \text{Post implementation operation and maintenance cost for year 2;} \)
   
   \( B_3 = \text{Post implementation operation and maintenance cost for year 3;} \)
   
   \( B_4 = \text{Post implementation operation and maintenance cost for year 4.} \)
   
   \( r = \text{the annual discounting rate, 9%.} \)

6. Calculating the financial Score

   The bidder with lowest NPV of the financial bid will be called L1.

   \[ \text{Normalized Financial Score of a Bidder (F_n)} = \left( \frac{\text{NPV of Commercial Bid of L1}}{\text{NPV of Commercial Bid of the Bidder}} \right) \times 100\% \text{ (Adjusted to two decimal points)} \]

   Only fixed price financial bids indicating total price for each of the deliverables and services specified in this bid document along with total price will be considered.
7. The bid price will include all taxes and levies and shall be in Indian Rupees and mentioned separately. Service Tax would be extra and would be reimbursable.

8. Any conditional bid would be rejected

9. Errors & Rectification: Arithmetical errors will be rectified on the following basis: “If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail”.

4.3.1 Combined and Final Evaluation

1. The technical and financial scores secured by each bidder will be added using weightage of 70% and 30% respectively to compute a Composite Bid Score.

2. The bidder securing the highest Composite Bid Score will be adjudicated as the most responsive Bidder for award of the Project. The overall score will be calculated as follows:

   \[ B_n = 0.70 \times T_n + 0.30 \times F_n \]

   Where
   
   \( B_n \) = overall score of bidder
   
   \( T_n \) = Technical score of the bidder (out of maximum of 100 marks)
   
   \( F_n \) = Normalized financial score of the bidder

3. In the event the composite bid scores are ‘tied’, the bidder securing the highest technical score will be adjudicated as the Best Value Bidder for award of the Project.
5 Appointment of Systems Implementation Agency/Partner

5.1 Award Criteria

CHI will award the Contract to the successful bidder whose proposal has been determined to be substantially responsive and has been determined as the most responsive bids as per the process outlined above.

5.2 Right to Accept Any Proposal and To Reject Any or All Proposal(s)

CHI reserves the right to accept or reject any proposal, and to annul the tendering process / Public procurement process and reject all proposals at any time prior to award of contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the grounds for CHI action.

5.3 Notification of Award

Prior to the expiration of the validity period, CHI will notify the successful bidder in writing or by fax or email, that its proposal has been accepted. In case the tendering process / public procurement process has not been completed within the stipulated period, CHI, may like to request the bidders to extend the validity period of the bid.

The notification of award will constitute the formation of the contract. Upon the successful bidder’s furnishing of Performance Bank Guarantee, CHI will notify each unsuccessful bidder and return their EMD.

5.4 Contract Finalization and Award

The CHI shall reserve the right to negotiate with the bidder(s) whose proposal has been ranked best value bid on the basis of Technical and Commercial Evaluation to the proposed Project, as per the guidance provided by CVC. On this basis the draft contract agreement would be finalized for award & signing.

5.5 Performance Guarantee

The CHI will require the selected bidder to provide a Performance Bank Guarantee, within 15 days from the Notification of award, for a value equivalent to 10% of the total cost of bid. The Performance Guarantee should be valid for a period of entire project. The Performance Guarantee shall be kept valid till completion of the project and operation & maintenance period. The Performance Guarantee shall contain a claim period of three months from the last date of validity. The selected bidder shall be responsible for extending the validity date and claim period of the Performance Guarantee as and when it is due on account of non-completion of the project and operation & maintenance period. In case the selected bidder fails to submit performance guarantee within the time stipulated, the CHI at its discretion may cancel the order placed on the selected bidder without giving any notice. CHI shall invoke the performance guarantee in case the selected Vendor fails to discharge their contractual
obligations during the period or CHI incurs any loss due to Vendor’s negligence in carrying out the project implementation as per the agreed terms & conditions.

5.6 Signing of Contract

After the CHI notifies the successful bidder that its proposal has been accepted, CHI shall enter into a contract, incorporating all clauses, pre-bid clarifications and the proposal of the bidder between CHI and the successful bidder. The Draft Legal Agreement is provided as a separate document as a template.

5.7 Failure to Agree with the Terms and Conditions of the RFP

Failure of the successful bidder to agree with the Draft Legal Agreement and Terms & Conditions of the RFP shall constitute sufficient grounds for the annulment of the award, in which event CHI may award the contract to the next best value bidder or call for new proposals from the interested bidders.

In such a case, the CHI shall invoke the PBG of the most successful bidder.

5.8 Currency of Payments

Payment shall be made in Indian Rupees (INR) only.

5.9 Repeat Order

CHI at its discretion may place Repeat Orders for additional quantities based on its requirements during the tenure of the Contract.

5.10 Completeness of the Project

The Project will be deemed as incomplete if the desired objectives mentioned in Section – 6, Scope of Work of this document are not achieved.

5.11 Canvassing / Contacting

Any effort by a Bidder to influence the Company in its decisions on Bid evaluation, Bid comparison or Award of Contract may result in the rejection of the Bidder’s Bid. No Bidder shall contact the Company on any matter relating to its Bid, from the time of opening of Commercial Bid to the time the Contract is awarded.
6 Scope of Work

6.1 Introduction:

Health System in India is highly fragmented with various types of providers (public, private) engaged in delivery of health services across rural and urban areas. In both public and private sector, providers have their own way of recording patient level information- where at one end of spectrum one can see highly sophisticated electronic health records being implemented (in tertiary care corporate hospitals) and on the other side paper-based records are still in use (public hospitals). However, in recent years more progress has been made towards computerization of hospital operations of public sector hospitals by implementation of HIS/EMR/EHR systems.

Since these electronic health records and hospital information systems have decent amount of clinical care data, the Ministry of Health and Family Welfare wishes to provide a platform which can facilitate data exchange among these information systems by implementing Integrated Health Information Project (IHIP).

To begin with, MoHFW has decided to implement the IHIP in centralized mode with an option of slowly moving to hybrid mode over a period of time after attaining the maturity of HIE. So it is suggested that the HIE proposed by the vendor should have feature of working in both modes from day one.

The IHIP is envisioned as standard-based highly interoperable health information architecture where information systems can participate in information sharing as and when need is felt. With this RFP, the MoHFW intends to implement a Health Information Exchange under IHIP which enables hospitals, physicians, laboratories, pharmacies, and other health services providers to deliver faster, more accurate, safer, higher quality and less redundant medical care to patients in the country. The overall objectives of IHIP includes following-

1. Facilitate exchange of clinical and administrative (patient level- granular & aggregate) data among health information systems, electronic health records across participating organizations/hospitals for improving quality of care and evidence based decision making.
2. Provide patients and providers access to the patient-level clinical information in one place to improve care quality and ensure continuity of care.
3. Provide national, state, district level aggregate information on health parameters readily available for identifying disease/conditions requiring immediate attention, crafting timely health systems response and better coordination of public health activities.
4. Promote adoption of electronic health records/ hospital information system by health service providers.
6.1 General Scope of Work

1. The Scope of Work is intended for a period of 5 years in which first year is the Development and Implementation phase and next four years are the Operation and Maintenance Phase.

2. Design and Develop the Inception Report: The detailed Project Plan for the implementation is to be prepared at the commencement of the project. The implementation of IHIP will require implementation of strong program management office. Program management service shall aim at constantly improving the business processes, leveraging technology solutions, incorporating best industry practices to maximize opportunities of business operations.

3. Develop detailed scope of functionalities to be implemented: The detailed scoping of the project to be implemented has to be finalized by the agency along with CHI. The Successful bidder should suggest and submit:
   - System Requirement Specification (SRS)
   - Functional Requirement Specification Manual (FRSM)

   The leading practice / best industry practice should be proposed and incorporated in FRSM & TRSM by Implementation Partner wherever applicable. In addition to this any statutory requirements or amendments directed by the MoHFW or any other regulatory body shall be incorporated in SRS by the agency/successful bidder.

   The agency shall provide and install software product(s) package (including development /customization) and related software licenses based on the finalized SRS, TRSM & FRSM. The development/configuration/customization process should ensure that the standards specified during the design phase are adhered to during the entire cycle. A standard methodology shall be adopted for Software Engineering, covering the entire SDLC (Software Development Life Cycle).

4. Detailed Design: Agency has to design the relevant documentation detailing mapping of approved SRS, FRSM & TRSM with IHIP Solution. The SRS document will have detailed requirements including each report and each workflow for all areas as above and a complete test plan with test cases that would include unit test plan as well as system integration test plan. The vendor will make the test plan and test cases in constitution with and to the satisfaction of CHI. The SRS document should have the flexibility to modify or change the processes up to 20% of overall scope in order to take into account any future regulatory requirements occurring during the implementation. The SRS, FRSM and TRSM will be the documents, but not exhaustive, to define the scope of work to be provided by the agency till completion of operations and maintenance period. If the SRS, FRSM & TRSM will require to be changed for any reason, the same should be covered under scope change.

5. Gap Identification and Resolution/Customization: The agency should be responsible for gap identification and resolution during implementation of IHIP. The agency will provide the detailed analytical reports pertaining to gap along with the necessary solutions to overcome
the gaps and the time frames. The agency will incorporate all the suggestions made by the CHI core team to the gap report. The agency shall resolve gaps by proposing a suitable work around or customizing the proposed solution by way of modifications / enhancements, as necessary, to the proposed software solution.

6. Configuration: Based on the approved SRS, FRSM & TRSM, agency shall be responsible for installation and configuration of — IHIP including any required customization / development / interfaces.

7. Developments, Interface/ Integration Management and Testing:
   Developments shall be in the nature of enhancements to existing applications, additional applications, additional reports and form changes etc. Successful bidder shall validate and confirm the need for any such developments that are required in order to meet the functionality of modules. Successful bidder has to undertake the following tasks :-
   a. Prepare a fitment analysis to identify enhancements that are required because of the business requirements and which cannot be met from standard functionality or through workaround.
   b. Documenting the functional and technical specifications for enhancement, development and reporting requirements.
   c. Prioritization of the development efforts and the estimates for reporting/ enhancement requirements
   d. Testing of developments
   e. Document the procedures for implementing and minimizing the temporary / permanent developments, enhancements.

8. Interface/ Integration management and testing should be as per the OSI standard practices. This shall include development of exhaustive test scenarios and necessary corrections based on the testing results and feedback. Agency shall ensure completeness of the interfacing/ integration testing with the desired quality and schedule. The CHI shall provide full support to Vendor in this connection, as and when required. The agency shall be responsible for the documentation of interfacing/ integration process & test results.

9. The underlying solution, project assets like solution architecture, application, encryption & security cyber security assets, database, database architecture would be owned, maintained and administered by the CHI.

6.2 Functional Scope of Work

Functional Scope of work of IHIP will include the following services:

- Electronic Health Record and platform to host various EHR/HIS/EMR and other public health IT Systems
- Health Information Exchange
- Registries (Master Patient Index; Patient, Provider and Facility Registries)
- Analytics Engine
6.2.1 Electronic Health Record

The MoHFW intends to provide a standards compliant flexible EHR system, which can be implemented by Hospitals and care providers from the IHIP Platform. The EHR system requires to be compliant with the EHR standards as notified by MoHFW, GoI and should be able to exchange information with other EHR/HIS systems through HIE. The following features to be made available in the EHR-

1. Identify and maintain a patient record: The EHR system should be able to uniquely identify patient, maintain patient demographics and records for multiple encounters and disease case episodes to facilitate continuity of care.

2. Clinical Encounter- Enables creation of an accurate description of the encounter in a readable form and a coded searchable description of the encounter that can be easily analyzed. Templates to be made available specialty-wise for documentation of progress notes. The provider should be given the flexibility to create his/her own template.

3. Diagnosis- Maintains the problems list (long term, per episode), support guideline based advice, provides access to knowledge-based resources (e.g. practice guidelines). Facilitate generation of reports by patients, providers and diagnosis.

4. Medication List – The EHR should provide ability to maintain medication list (long term, per-episode, active- inactive) allergy list, write prescriptions, and automatically alert the practitioners about any drug allergy. Should have prescription writer and support prescription sharing with pharmacy (email, message), and medication history, Automatic drug interaction checking should also be made available (drug-drug, drug food), should enable creation of practitioner specific medication list, Provide drug information such as side effects, adverse reaction, overdose, dosage, forms supplied. Ability of the user to add new drugs prescriptions to the systems, generation of reports by patients, medications and providers.

5. Manage clinical documents and notes: The system is able to manage clinical documents and notes for the patients and has the ability to capture external clinical document. The scope of this includes outpatient, inpatient, ambulatory care services and any procedure performed.

6. Lab/X-Ray/Pathology Features- Maintains test history (by patient and provider), automatic download of lab report. Permits uploading of orders to other facilities, maintains profiles of available test/indications, flags abnormal lab results, permits tracking of abnormal lab follow-up. Permits creation of panels- disease specific, patient specific and population specific. Generate alerts for redundant testing, generates report by patient, medication provider. Should support uploading, sharing and exchanging of radiology images.

7. Preventive Health features- Maintains patient intervention history, permits design of interventions protocols by sex, age, disease state, permits guidelines based protocols, provides user-friendly alerts. Ability to generate report by patient, provider, diagnosis and protocol.

8. Referral Creation – Maintains list of referral sites/ providers by specialty, reason for referral, location. Maintains referral history (patient, provider, site and reason/diagnosis), Maintains
list of approved providers/sites by provider preference. Ability to generate reports by patient, provider, reason/diagnosis, referral site/provider, reports by email attachment.


10. Patient education-use defined, preloaded, and updated regularly, web access to educational materials. All materials should be modifiable by the administrative user.

11. Provider Profiling – profiles of provider activity (medication, lab, referral, and preventive health), profile of practice site activity (medications, labs, referrals, and preventive health, patient), disease registry etc.

12. Quality analysis- data validation mechanism and mechanism for performance reviews for practice guidelines, protocols and pathways and outcome analysis.

13. Flexible: The EHR system should be flexible enough to be customized as per the user needs. It should allow for creation of more modules as and when it is being required. The system should be able to accommodate alerts and notification of all national health programs. In addition, the clinical data must be aggregated for reporting data under various national health programs.

14. It is the responsibility of the provider to host this system on the IHIP platform and made it available for health care providers.

15. The scope of EHR implementation includes customization of the system, end user training, capacity building and change management.

16. The EHR and related Intellectual Property Rights will be the property of the CHI and there will be no license fee. The development charges will be given to bidder one time and will involve periodic updates, patches, security updates and upgrades will be the part of operational expenses. The EHR will be made available to providers free of cost that will be downloadable from Exchange Portal, NHP Portal and MoHFW portal.

17. The EHR system should have facility to work in online as well offline mode where there are fewer connectivity options.

18. The EHR system should also be compatible for use in desktop, laptop, mobile and tablets.

19. Reports to be made configurable so that it can be generated on multiple data points decided in consent with CHI / MoH&FW. These reports may be configurable to appear in table, pie or tabular chart.

20. EHR should be platform independent in the sense that it should be compatible with all operating systems and databases.

6.2.2 Health Information Exchange

There are myriads of EMR/EHR/HIS systems currently in place with hospitals and patient data is locked within these systems which can’t be exchanged with another health service provider. The Health Information Exchange would facilitate exchange of patient level data with another service provider. Through the current RFP, the MoHFW intends to integrate different EHR/HIS/Tracking System with multiple implementation instances in following Phases.

Phase-1

These include following:
1. Three State wide HIS/EHR implementations (Haryana, Kerala, Tamil Naidu)
2. Seven Central Government hospitals AIIMS (Delhi, Bhopal, Raipur, Jodhpur), PGI (Chandigarh), JIPMER, Puducherry, Ram Manohar Lohia (RML) Hospital, New Delhi.

Phase-2

1. Four States/UT wide HIS/EHR implementations (Gujarat, Telangana, Chandigarh, Himachal Pradesh)
2. One Large corporate Chain of Hospitals where HIS/EHR is implemented
3. eHospital-NIC

Phase-3

1. Three States HIS/EHR implementation(Rajasthan, Andhra Pradesh, Punjab)
2. ESI-HIS
3. CGHS-HIS
4. Two public health systems (MCTS, Nikshay) which hold clinical data.
5. HIS developed by CDAC Noida

The MoHFW is looking for an HIE product which should support following functions-

6.2.2.1 Integration Engine:

1. The IHIP is looking for a highly interoperable model where over a period of time most of the systems can participate in information sharing and data exchange.
2. The HIE must have provision for data exchange between various HIS/EHR systems participating in the information exchange where an external system can query information to HIE and HIE using its internal components such as integration layer, record locator services, facility registry, patient registry and shared health record is able to extract and submit the desired information. The HIE provider shall maintain an acceptable retrieval time.
3. It is the responsibility of the HIE system to provide single source of secure entry to all systems participating in the exchange and manage the queue of queries, provide secure access (audit trail and node authentication, digital certificate etc.) and keep record of all transactions (successful, failed, error etc.) that take place in IHIP. The HIE should be able to facilitate message routing to the appropriate service provider within the infrastructure and facilitate conversion of non-standard data into the standard format (mediation services) using adopters and orchestrators before sharing data with the destination system.
4. It is the responsibility of the HIE provider to conduct thorough requirement analysis of the all participating systems and facilitate data exchange in standard format from multiple formats (i.e. API, HL7, etc.). The system should have flexibility to take data in batch mode or real time mode based on the need and status of the peripheral systems.
5. The HIE must provide logs transactions data and display errors that occur between services. The HIE must expose APIs for integrating diverse set of systems and facilitate request for services in real time (in standard format) who wish to participate into the information exchange. The HIE provider must establish mechanism to review the message
transportation procedures (i.e. log, monitor and audit services) to improve the performance of the system and error management.

6. The EHR standards as published by MoHFW could be referred to for selection of syntactic standards (XML, HL7 etc.) for data exchange and Metadata and data standards for providing appropriate metadata.

7. In addition, the HIE provider shall provide a capability for transformation of messages between different document formats (e.g., HL7v2 to v3 or EDI to XML), to parse and validate various document formats, and to create and map across different message envelopes and content requirements based on source and target system requirements.

8. The HIE system should support custom API development. This may be achieved via the use of an external API manager.

6.2.2.2 Terminology Services

1. The HIE should use standard terminologies (as defined in EHR Standards (V2), 2016 notified by MoHFW, Govt. of India, Metadata for these could be sourced from data and metadata standards) and normalize terminologies of all participating information systems/ electronic health records on the fly when participating in information exchange (both inbound and outbound messages) to ensure the receiving system can correctly interpret and use the data it has received. EHR Standards notified by MoHFW will be available at National Health Portal at [http://www.nhp.gov.in/NHPfiles/Electronic%20Health%20Record%20(EHR)%20Standards%20-%202016.pdf](http://www.nhp.gov.in/NHPfiles/Electronic%20Health%20Record%20(EHR)%20Standards%20-%202016.pdf)

2. As of now all information systems working in Indian Health System operate using their own terminologies which may not be standardized. In such a scenario it would be the responsibility of the HIE to normalize the data and study the workflow of each of these participating systems to ensure proper data exchange.

3. The Terminology service would integrate and manage terminology standards and definitions, including terminologies, ontologies, dictionaries, code systems, value sets, and mappings, across IHIP network.

4. The HIE provider would be required to develop mapping between reference terminology and interface terminologies. The mapping between source and the target codes should be saved separately for referencing. To ensure proposer access to the terminology services it is required that the terminology services will have application programming interfaces to access terminologies in a reliable, reproducible way.

5. It would be the responsibility of the provider to implement terminology services which includes- installation, configuration of software and hardware for terminology services, population of terminology services with required dictionaries and terminologies, support and facilitation for changes in the point of care systems which will interact with the terminology services, testing, documentation, training of the users, development of policies and procedures for system maintenance, backup and timely loading dictionary updates.

6. Once the terminology services are up and running, it would be the responsibility of the HIE vendor to ensure post implementation support which includes operational support (development and maintenance of policies and procedures to support business and
technical processes for the Terminology Service, evaluating adherence to the selected terminology standards, ongoing analysis of impact of any terminology or mapping change/revision/ updation and support for change implementation, help desk support to various user queries and documentation of each of the query along with the response, routine assessment of the terminology services which includes but not limited to the assessment of frequency of codes’ use; correctness of methods of code validation; frequency, types, and causes of errors; and prevalence of redundancy/over coding etc.

6.2.2.3 Shared Health Records (SHR)

1. The IHIP intends to build single shared longitudinal health record of the patients in due course by harmonizing the clinical information that is being collected from multiple EHR/HIS systems (both current and prospective).
2. The objective of doing it is two-folds
   a. Improve the quality and productivity of health care services and reductions in medical errors; avoid unnecessary testing and reduction in cost.
   b. The longitudinal records should be able to aggregate the patient-level information to provide population-level indicators to support public health program management, disease surveillance and clinical research etc.
3. The SHR system will provide a centralized repository to store and manage the health information that are shared by the heterogeneous information systems (HIS, EHR, MCTS, Nikshay etc.) functioning in India. The HIE should have the capability to parse the patient clinical data into the SHR.
4. The SHR will enable point of service applications to save clinical information (both structured (e.g. Clinical observations, treatment summaries, medications, lab reports); and unstructured data (e.g. imaging documents- X-rays, text data)) into it. The exact information (e.g. data elements) that would be shared in the SHR would be finalized by the CHI/MoHFW during the course of the IHIP implementation.
5. The participating systems should be able to query a set of relevant clinical information about a patient from SHR.
6. The Clinical data repository which could be used to hold the shared health record will be developed within the HIE. It is the responsibility of the HIE provider to select appropriate database system for development of Clinical data repository and expose APIs to get it accessed by various information systems participating in the information exchange/ for analytics/data query and further development or enhancement of the CDR output.

6.2.2.4 Analytical Engine

1. The HIE must have analytics engine to generate aggregate indicators at various levels (facility, block, district, state etc.). This includes aggregating patient level clinical information on- services, procedures, activities, diseases in addition to administrative information such as human resources distribution, service availability, and service quality etc. from the facilities participating in to the IHIP. The dashboard should also be able to present all transaction related information. The analytics should be made available for the individual
facilities and providers. The analytics engine should also facilitate analysis of information contained in the registries (patient, provider, facility).

2. The Dashboard should provide role-based access to various levels of users as per their role into the system.

3. The user should be able to drill-down, slice, dice, roll-up and pivot data (OLAP) and compare data up to the most granular level as per the need. The system should be able to define data marts and generate different kind of static and dynamic reports based on the user needs.

4. It should also be possible that Dashboard provide ability to generate various types of charts and graphs which can be customized by the users as per the need.

5. The Dashboard should support map-based analysis where data (multiple indicators) could be plotted over maps where it can be drilled down up to most granular level on the map.

6. The user should be able to generate, export and save data, report in PDF, Excel, CSV format which could be printed or shared with the various users outside of the system.

7. The Dashboard should be able to conduct population level analytics using multiple query combinations and detect the presence of infectious diseases/ change in pattern for any disease, symptom etc. at an early stage of an outbreak in addition it should provide insights into the patterns and trends of disease throughout a population group.

8. It is also suggested that the HIE dashboard should also be able to provide aggregate information on specific queries which could be drilled-down up to the most granular level.

9. The system must be able to generate standard and custom reports. All public health program reports that are mandatory for submission to the concerned departments should be generated from the system. There should be flexibility to the users to create their own reports based on the need.

6.2.3 Registry Services

The overall scope of the IHIP includes development and maintenance of patient, provider and facility registries. These registries to be build and maintained separately from the exchange where HIE can refer or use a copy of these registries for patient, provider, facility record identification. Detailed requirement of each of these registries are explained below-

6.2.3.1 Patient registry and Master Patient Index (MPI)

1. Aadhaar number is to be considered as unique identifier for the patients. Since we may consider many patient encounters without Aadhar, the possibility of using additional identifier would be there.

2. In addition, Master Patient Index (MPI) would be required to put in place to ensure that the patients are uniquely identified and records of the same patient from multiple systems are integrated to ensure complete medical record and continuity of care is accomplished.

3. The MPI should include but not limited to following capabilities-

4. The MPI product should be mature and should have at-least three years of large-scale implementation.
5. The MPI Patient Data Model should be flexible to accommodate requirements of various service provider systems.

6. The MPI algorithm must be mature and must have inclusion and exclusion filters to add, remove attributes, support matching technology to accommodate transcription errors.

7. MPI must support probabilistic matching technology, should have single best record notion, ability to lock individual attributes in a Single Best Record to prevent them being updated by an automated process.

8. The MPI must support review of potential duplicates and manual merge of potential duplicates. The MPI must support manual unmerge of records which have been merged. The MPI must include a tool to allow bulk match of records.

9. The MPI must support potential duplicates report, assumed matches report, merges report, unmerges report, other administrative reports, historical record review etc.

10. The MPI should provide standards-compliant integration infrastructure, which will allow external systems to: Provide patient identification feeds to MPI, Receive patient information update notifications from MPI, Query MPI for patient identifiers, Query MPI for patient information using demographic criteria, Incorporate MPI functionality into end-user-facing client applications, and support incorporation of MPI functionality into enterprise integration solutions. Metadata and data standards of MoHFW should be referred for selection of appropriate attributes of the patient registry.

11. It would be the responsibility of the HIE provide to maintain the quality of data into the patient registry and clean the historical patient data of any new hospital/ EHR system prior to data export when they join the HIE network.

12. It would be responsibility of the HIE provider to establish data quality monitoring program to identify and resolve issues such as phonetic misrepresentations; typographical inaccuracies; and morphological confusion arising during point of care patient data collection.

13. The system should be able to update any demographic change in the patient registry, which should be communicated to the EHR/HIS systems holding patient records to maintain consistent identification.

14. It is the responsibility of the HIE provider to develop a process to determine the appropriate matching scheme which should be reexamined and possibly recalibrated at regular intervals based on the data quality monitoring program for patient registry.

15. It is also the responsibility of the HIE provider is to develop and implement capacity building and change management plans for personnel engaged with data collection and entry, development and implementation of error log and remediating users when errors occur.

6.2.3.2 Facility Registry

India currently does not have a single source of truth for health facility related information. The health facility data which is currently held by various disparate public health information systems functioning at central and state level has significant difference in terms of number and type of facilities. To overcome this challenge the Ministry of Health & Family Welfare has initiated process of providing unique identification number to all health facilities in the country.
The unique health facility identifier is known as National Identification Number (NIN). NIN is a randomly generated 10 digit unique identifier. Centre for Health Informatics has developed an online NIN portal (www.nin.nhp.gov.in) for managing health facilities database. The NIN Portal is developed using PHP (frontend) and MySQL (V 5.1.7) in the backend. The database currently holds records of around two lakh public health facilities. The HIE provider’s services are required for further development, enhancement, integration, implementation, management and maintenance of the national NIN Portal for building national health facility registry where hospitals/health facilities of the country would get registered and would receive National Identification Number (NIN). The indicative high-level requirement of the proposed NIN registry is given below.

1. **Build Registry Database** - Current facility database to be converted to the registry database with checks and balances. Build look-up registry for synchronizing facility data from legacy systems through APIs/ Web Services and ensure master data management. Develop & Implement standard protocols for facility data validation. The facility registry system to have Extract, Transform, Load (ETL) function to import facility data into the registry database from legacy systems. It is also possible that some of the facility records would be available in the paper/Excel format and it would be responsibility of the agency to get these entered into NIN and get legacy systems (e.g. HMIS, MCTS, Nikshay, IDSP and Rohini etc.) integrated with NIN. The system should have flexibility to take data in batch mode or real time mode based on the requirement. The frequency of data sync with legacy systems should be flexible which can be changed. NIN System should be able to map catchment area of health facilities and population. There should be flexibility to add administrative hierarchies in the organization tree of facility registry.

2. **Data entry interface** – The Portal should use standard form for enrolling new public and private facilities into NIN system by various users. The system should generate NIN for all registered facilities. The temporary NIN could be given to facilities when they are first time enrolled into the system and after verification permanent NIN will be issued to the health facility. The system must integrate with other similar systems currently in use to import health facility data into the NIN registry and provide health facility data in required format. In addition, the system must allow bulk upload of the facility data in standard format. Standard format for import/export of data is to be developed by the agency. The system should be able to provide alerts/feedback to the users- through email, SMS for any facility details entered/ edited in the portal. There should be a provision for suggesting/identifying any incorrect information about a facility by any user which could be shared with the concerned facility data owner for verification and correction online.

3. **Data Validation & De-duplication** - Build protocols for de-duplication and facility data validation. De-Duplication engine should identify facility duplicates. While registering facility the system should prompt suggestions to the users in case identical records are found in the database. System should have front end and database level validation mechanism for any facility related data being entered into the system. The de-duplication/validation logic is to
also applicable when bulk data is imported in the system and for the facilities already part of the NIN database.

4. Integration engine- The NIN Portal needs to connect with various information systems for sharing facility data through open APIs/Web Services. The scope of work covers both generic APIs as well as specific APIs based on the needs of the user system. The system should allow revising and or deleting APIs whenever required. The system should have Query Facility API with different query control parameters.

5. Public Access Module: A general user can access and use NIN data through search queries for their own information and should be integrated with directory services module of National Health Portal and Mobile App.

6. System Implementation- The selected agency will provide support to the users for implementation of the NIN System, organizing meetings with the stakeholders in consultation with the CHI. Managing user requirements, system development as per the agreed user needs, training and capacity building of the users and support for system implementation. The agency has to calculate the compute requirement of the upgraded system and give suggestions to CHI for the arrangement of the same.

6.2.3.3 Health Worker Registry (HWR)

As of now, India does not have a provider registry in place. Currently Health Worker records are kept in paper form either with the professional registration councils or with the government health department/ hospitals, which are employing these professionals. Professional councils such as MCI/CCIM/CCH allocate identification numbers to each individual professional in their register. However, for many other healthcare professionals there is no unique registration number available due to lack of a regulation and registration body e.g. Physiotherapists/ Audiologists etc.

The current scope of work includes development of a health worker registry where a jump-start can be made by using some of the existing databases, which can be updated based on the participation of providers as and when it happens. The scope of this work includes creation of registry database for the health care providers for various professionals. The Metadata and Data Standards can be referred for selection of the attributes for the provider registry. It is the responsibility of the HIE provider to conduct thorough analysis of the Health Worker registry requirements, identify providers to be covered, identifier and attributes for the provider registry and the mechanism for de-duplication, data sharing and matching with the health worker registry database.

6.2.4 Portal

1. The overall scope of the work includes development of portal for patients, Health care providers and NIN Portal. These portals should be able to be accessed by authentic users and the access should be role-based, single sign-on enabled and be integrated with citizen portal of MoHFW i.e. www.nhp.gov.in.

2. The portal should have appropriate mechanism to ensure privacy and security mechanisms as defined by Ministry of Health & Family Welfare, GoI. A provider could submit a query
about a patient, his clinical information, provider details, facility details and any other information as specified by MoHFW.

3. The HIE should be able to securely communicate data from the participating system into the Physician’s inbox or provide real-time information as per the need.

4. The provider/hospital could also be able to request for updation of the patient demographic records/facility details etc. The HIE should be able to keep record of all request made, information given for each provider/patient.

5. The HIE may also be able to share the alerts related to specific patient for care reminders, screening test notifications, to the treating physician or health program manager for unusual patterns for diseases, upcoming appointments etc. The system should be able to generate real-time alerts at the point of care for inpatient admission, discharge and transfer to the user.

6. The patient portal could be configured to allow family members or other authorized persons to view and manage health information for dependent children or elderly patients.

7. Similar to the providers, patient portal is also required to be developed, which will provide access to the patients about their health information. The patient portal should provide functionality for the patients to view historical data, current and past medications, and current and past appointments. It should also allow patients to communicate with their providers via secure messages or secure email, provide personalized educational information and consolidate health information from multiple healthcare data providers.

8. The ownership over patient data would be defined about the MoHFW. The portal should have privileges to mask some of the information which patient may not want to share with the physician. However the actual guidelines for these would be decided by the MoHFW.

9. Portal should be able to work on current commonly used web browsers (Windows, Mozilla, Chrome, Safari etc.) and have intuitive GUI and content of the portal should be flexible to be personalized by the users.

10. The mobile portal must adhere to GIIGW guidelines laid down by Govt. of India. The Portal(s) should have intuitive GUI with uniform color definitions, field defaults, mandatory fields, field tab order and properly segregated sections and no horizontal scrolls. The system should be built responsive to web design where the layout changes based on the size and capabilities of the device. System should provide smart search option for the retrieving facility information where facility data could be searched into the system database using multiple search options. The system must have audit trail function along with data backup and recovery plan. System should provide Help files for users to navigate through the system. There should be proper error handling mechanism, where all possible errors should be handled and thrown to the user as a pop-up window/message if user is required to take any specific action. The system must allow for the role-based access for the users.

11. Functional Testing and Security Audit of Portal will be done periodically i.e. at the interval of every six months. Portal should be enabled with secured Content Delivery Network (CDN) facility for faster usage. Portal should have informational, educational and communication content in multi-media.
6.2.5 Consent Management
The HIE provider in consultation with MoHFW requires to implement consent management and authorization policies for sharing of data and information in the HIE system. The system should have capability to recognize and flag sensitive patient information, facilitate opt-in and opt-out functions (with/without exceptions) and various levels of consents.

6.2.6 Security and Privacy
The HIE provider is to ensure the privacy and security of patient’s clinical data as per privacy, confidentiality, security and breach notification rules defined by MoHFW under IHIP. The system must have role based secure access, standards-based encryption (in transit and at rest) for all data, standards-based audit and logging capabilities; standards-based sensitivity and flagging mechanisms to protect patient privacy and clinical data sensitivity. The privacy and security standards of the HIE system should have the capability to evolve over a period of time. The system should be able to prevent an active attack or stop an active attack where unauthorized access or use of the system has occurred.

6.2.7 Auditing
The system must have robust audit log in place to provide details of who accessed patient data, it should be able to raise alerts due to access violations or odd access patterns. The logs should be able to be exported for third party review and audit. For audit purpose, delete command should not be used anywhere in the solution that, inter-alia, includes application, database and middleware. For any modification, insert command may be used and data being modified be retained.

6.2.8 Data Preservation
All data including transaction details will be maintained and retained by the system for use and review for the period of at least 7 years. Timeline for data purging / archiving and for any extension in retention period will be decided by CIH and MoHFW. Data will be archived in a usable format and it will be responsibility of selected bidder to ensure that the archived data always remain usable and will not become unusable due to obsolete technology.

6.3 Key Personnel
The Bidder must certify that all personnel named in their proposal shall actually work on the contract in the manner described in their proposal. In addition, these individuals shall continue to perform services for the duration of the Contract, except in the event of resignation or death. No changes, substitution or deletions shall be made unless approved in advance by the CHI, which approval shall not be unreasonably withheld. In such event, any substitute personnel shall be approved in writing by the CHI. However as per the need of the project bidder may add additional skilled professionals to execute deliverables on time.

During the course of the contract, the CHI reserves the right to approve or disapprove any of Selected Vendor’s or any subcontractor staff assigned to the contract, to approve or disapprove any proposed changes in staff, or to require the removal or reassignment of any Selected Vendor employee or subcontractor employee that the CHI finds unacceptable. Replacement of personnel shall be made as soon as possible, and not longer than thirty (30) days after the date on which the need for a change has been determined. Replacement of any personnel shall be
with personnel of equal or greater ability and qualifications and shall be made subject to written approval by the CHI.

It is preferred that same proposed resources continue during entire project, but in case, any resource leaves then replacement should have same or higher qualification (in academic and experiences) and replacement will be trained in advance by selected bidder before they will join to replace the existing resource in project.

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| 1    | **Project Manager with 10 years of Experience in IT/ITES/IT infrastructure/ Software Services.**  
- Must be BE/BTech in Computer Science/IT or equivalent.  
- Must have Prince2 or PMP certification.  
- Experience of health care sector and e-Governance is preferable.  
- Must have worked on at least 2 large projects.  
- Experience of implementation of ISO27000 & ISO20000  
- Should have done minimum 1 e-Governance Implementations/management as a Project Manager. |
| 2    | **Solution Architect with 8 years of experience in technology solutions in health care industry.**  
- Must be BE/BTech in Computer Science/IT or equivalent  
- Must have 3 years experience in designing and implementing Health Information Exchange  
- Experience with Enterprise Solutioning in the Healthcare Industry preferred  
- Experience with Enterprise-Class Hospital Systems preferred:  
  - Patient Management (PM), Electronic Health Records (EHR)  
  - Enterprise Master Patient Indexing (MPI), Integration  
- Knowledge and experience with Healthcare specific technology protocols preferred:  
  - HL7, CCDA (CCD/CCR), FHIR, PIX/PDQ  
- Knowledge and experience with Enterprise Architecture preferred |
| 3    | **Functional Manager-Heath Care**  
- MBBS or BAMS/BHMS/Nursing/BPharma/BPT with MBA (Healthcare, Health IT)/ MHA /MPH  
- 8 years of total experience  
- 5 Plus years of experience in Health IT  
- Experience of Indian Health System, Processes, Clinical applications, semantic and syntactic healthcare standards such as ICD, SNOMED-CT, HL7, CCD, EMR, EHR, HIS etc. |
| 4    | **Sr. Technical HIE Business Analyst with 5 years of experience in health care industry**  
- Must be BE/BTech in Computer Science/IT or equivalent  
- 2 plus years Healthcare Industry Integration experience preferred  
- 2 plus years practical level experience in providing Integration/Interoperability support on large and complex projects in Healthcare environment  
- Strong Knowledge of HL7, CCD, Clinical applications, EMR, and Revenue Cycle applications  
- Working knowledge of databases and tools i.e. SQL Server, web services, XML, CCD, Health Information Exchange (HIE), and IHE Profiles preferred  
- Working knowledge of integrating systems with at least one third-party service vendors. |
1. Responses received in Annexure-2, Form-2 and Form-4 would be used for evaluating the bidder on the skills and experience of the proposed project team and in accordance with the requirements of this project.

2. It is expected that the key resources are currently on the rolls of the bidder.

3. Bidder has to provide the CVs of key resources along with self attested educational certificates such as degree, professional certifications and Joining report of the resource in company. CHI at its discretion may ask vendors to arrange meeting/discussions with proposed resources or hire any third party for verification.

4. The bidder is required to provide the governance structure/ escalation matrix and profile of all the key personals of the organization including the proposed resources who would support the project.

6.4 Hosting Services

The Successful Bidder shall deploy, operate, maintain, and support the MoHFW’s IHIP on behalf of CHI for a period of 5 years. In addition, the Successful Bidder shall establish and maintain a disaster recovery environment suitable to enable business continuity in the event of a disaster that affect the operational environment.

The Successful Bidder shall perform all IT service management using Information Technology Infrastructure Library (ITIL v3) process definition to manage the delivery of the services provided. This includes ensuring that all staff related to the delivery and hosting of the CHI are at least ITIL v3 foundations certified – copies of ITIL v3 certificates must be provided to CHI within six months of an employee’s hire date. This requirement also applies to any sub-contractors hired by the selected Successful Bidder.

The Successful Bidder proposal must describe the approach to be used in delivering the following capabilities in support of CHI’s operations and customer support.

Disaster Recovery Exercise will be done annually and effectiveness of exercise be reported to CHI / MoH&FW. This exercise will include application as well as database recovery and cross check business continuity plan.

6.4.1 Scalable Environment

The Successful Bidder shall provide an environment for the IHIP System that will scale to meet the needs of the country. The Successful Bidder shall utilize a load testing service at the volumes described in this section. As part of the bid response, the Successful Bidder shall provide evidence of their scalability capabilities and describe their plan to test scalability. The Successful Bidder shall document their capability for the infrastructure to be extensible, scalable, redundant, and resilient.

6.4.2 Service Availability

The Successful Bidder shall guarantee 99.98% service availability (measured in 5 minute intervals on a quarterly basis and excluding maintenance downtime) for the hosted IHIP System. The Successful Bidder will provide regular reports to the appropriate contacts designated by IHIP. The Successful Bidder shall track and report on system uptime on daily and
weekly basis. In the RFP response, the Successful Bidder shall provide system uptime tracking reports.

6.4.3 Maintenance
The Successful Bidder shall have the ability to perform routine maintenance during the planned weekly maintenance period. Routine maintenance shall include, but is not limited to, server upgrades/patching, software upgrades/patching. In order to maintain system availability, the Successful Bidder is expected to have the capability to rollover to a backup site during maintenance periods.

6.4.4 Change Management
The entire solution shall be controlled via complete change management processes and archives that must include, without limitation, configuration of each component, all aspects of the database(s) except the application data which shall be archived and backed up, applications, interface configurations, custom software developed for this project, and test, production and other environments. Such configuration shall be sufficiently rigorous so that the entire system can be restored from the change management process. In addition, such change management shall be used for changes to each operational environment (such as test and production).

6.4.5 Systems Environments
Successful Bidder supplied hosting services shall include environments for development, testing, training/demonstration, pre-production, Disaster Recovery exercise and production. All platforms will remain synchronized with the Production environment such that migration of new software (e.g., Participant interfaces and other functionality) will avoid change control and change management issues. All environments will reside in the India. Minimum environments to be provided by the Successful Bidder include:

1. **Development**—the development environment will be where all new solution development and software configuration will take place for IHIP. This includes the development and configuration of interfaces to IHIP participants.

2. **Testing**—the testing environment will be used to validate newly developed and configure solutions. Successful Bidder will be accountable for establishing all technical elements to support testing of core HIE functionality, added-value services (future), and integration with participants in the IHIP System (e.g., hospitals, physician practices, labs, State agencies, etc.) which includes establishing working connectivity with participant data centers.

3. **Training/Demonstration**—Production solution installed in an environment that will be used for training IHIP and Participant administrative personnel and end-users. Environment will also be used for demonstration purposes by CHI personnel. The environment must include a sample set of patient data as well as tools that will enable CHI personnel to reset that sample data set after training or demonstration events may have changed the original dataset. The environment must be populated with enough simulated patient data to be able to fully demonstrate the HIE capabilities as well as any other Value added Services that the Successful Bidder recommends (e.g., EMR capabilities).

4. **Pre-production/Certification**—Environment dedicated to certifying the clinical and technical integrity of newly added functionality and new Participant interfaces. This environment will be managed by the Successful Bidder as an exact replica of the Production
environment including all technical elements. This environment will be used to validate one new capability at a time and only will be needed when multiple integration and development project are running concurrently.

5. **Production**—it is the responsibility of the successful to deploy, maintain and run the IHIP system in the Production environment. Such an environment should be operating using the highest level of best practices for hosting sensitive information. Necessary compute infrastructure will be provided by the CHI.

6. **Disaster Recovery & Business Continuity**—The Successful Bidder will provide a hosted capability that facilitates system recovery and continuity of IHIP services in the situation where the primary hosted environment is negatively impacted by a disaster rendering the IHIP hosted environments to be inoperable.

7. “Sandbox”—For future development of value-add IHIP services, IHIP will eventually require a developmental "sandbox" environment, similar to the test or training environments, for use with other solution vendors partner testing; such an environment would be hosted with access to tools and configurations for simple administrative purposes.

### 6.4.6 Facilities Support/Network Operation

#### 6.4.6.1 Managed Services & Infrastructure Maintenance

1. The Successful bidder shall be responsible for the overall administration and management of the IHIP including the Managed services at DC & DR. The Successful Bidder shall be responsible for the following, which includes, but is not limited to:
   a. Maintenance of Server System including at Data center and DR site.
   b. Undertaking of performance tuning of the Hardware System to enhance System’s performance
   c. 24x7 monitoring & management of availability & security of the infrastructure & assets (including data, network, servers, systems etc.) provided by the CHI.
   d. Monitoring and recording ICT infrastructure performance at all locations and taking corrective actions to ensure performance optimization on a daily basis.

2. The Successful Bidder shall co-ordinate at the Managed services locations regarding all operational/commercial and other related issues (including but not limited to) various network Operators and other vendors / departments for problem resolution wherever required. The Successful Bidder shall enable audit logs for the Servers, System activities etc. and such audit logs shall be analyzed at regular intervals to identify and address security and performance issues. The Successful Bidder shall also produce and maintain system audit logs on the System for a period agreed to with the Purchaser. On expiry of the said period the audit logs should be archived and stored off-site at a location agreed to with the Purchaser. All data including transaction details will be maintained and retained by the system for use and review for the period of at least 7 years. Timeline for data purging / archiving and for any extension in retention period will be decided by CIH and MoH&FW. Data will be archived in a usable format and it will be responsibility of selected bidder to ensure that the archived data always remain usable and will not become unusable due to obsolete technology.
3. The Successful Bidder shall co-ordinate with all external agencies/vendors such as Cloud Service Provider, bandwidth provider, hospitals, providers etc. during this period for addressing any issues arising out of the project.

6.4.7 Systems Management
1. The Successful Bidder shall maintain and support of all IHIP software, interfaces, and codes sets, tables, business rules as governed by the change control and change management process. Successful Bidder shall utilize a service management framework such as ITIL v3 or equivalent framework to manage IT services and infrastructure.
2. The Successful Bidder shall produce and maintain policies, procedures, and processes in place to ensure security and confidentiality of all data stored and transmitted by the IHIP Solution. Successful Bidder shall provide copies of existing policies, procedures and process descriptions/flow diagrams as part of their bid response.
3. The Successful Bidder shall define and document stress testing performed of systems prior to release to production.
4. The Successful Bidder shall support penetration testing from external vendors
5. The Successful Bidder shall produce a Systems Testing Plan. At a minimum test plans shall include following:
   - Test data and impact on integration testing prior to user acceptance testing (UAT).
   - User acceptance testing plans.
   - Specific test plans for consent management.

Successful Bidder’s response to proposal must include:
   - Examples of system testing plans.
   - Copies of test planning documents and strategies.
   - Successful Bidder provided documentation should demonstrate their ability to establish separate system testing (unit and integration), user acceptance testing, training and production environments.

6.4.8 Storage Management
1. **Store Backed-Up Data:** The Successful Bidder shall store backed-up data apart from production data center at a sufficient distance to prevent simultaneous loss of production and back of data stores.
2. **Back-Up Data Recovery:** The Successful Bidder shall recover lost or deleted data from backup.
3. **Alternative Recovery Location:** The Successful Bidder shall establish an alternative recovery location in the event of a significant interruption to the production system environment.
4. **HIE Data Storage:** The Successful Bidder shall design, document, and implement responsibility for all HIE data storage, including online, near-line, archival, retention, and backups.

6.4.9 Architecture and Security
The Successful Bidder is required to design, develop and implement an architected solution that includes reasonable and appropriate security measures to protect against reasonably
anticipated threats or vulnerabilities to the security of Health Information and other sensitive and confidential information. The security controls shall be based on the guidelines and standards formulate by the Ministry of Health and Family Welfare or any other governing body. The Successful Bidder shall ensure that it and the architected solution meet industries best Security Standards and Requirements. The proposed IHIP solution should be compliant to National Security Policy 2013 issued by Ministry of Electronics and Information Technology, Government of India.

The Successful bidder shall be responsible for ensuring overall information security of the IHIP, including but not limited to:

- Web Portal
- Application software
- System Software
- Support Software
- Data,
- Information etc.

The Successful bidder shall be responsible for the regular update of the security policy as formulated during project development/ customization phase.

The Successful bidder is responsible for implementing measures to ensure complete security of the IHIP (including its entire environment) and confidentiality of the related data, in conformity with the security policy of the MoHFW

The Successful bidder shall be responsible for guarding the Systems against virus, malware, spyware and spam infections using the latest Antivirus corporate/Enterprise edition suites which include anti-malware, anti-spyware and anti-spam solution for the entire IHIP solution deployment.

The Successful bidder shall monitor security and intrusions, which mandatorily shall include taking necessary preventive and corrective actions. The Successful Bidder shall create a System Security Plan that catalogs all of necessary controls.

6.4.10 Performance Management

1. **Performance Utilization Measures:** The Successful Bidder shall monitor servers for performance utilization measures, response, memory, disk space, bandwidth and uptime. Included in the bid response, the Successful Bidder shall provide documentation describing performance utilization measurement capabilities.

2. **Performance Benchmarks:** The Successful Bidder shall document and demonstrate measurement of and system performance benchmarks against similar systems.

3. **Monitoring Capabilities:** The Successful Bidder shall monitor network connections, devices, activity, database sizing, system response times, availability, utilization, and memory, and defect tracking. Included in the bid response, the Successful Bidder shall provide documentation describing monitoring capabilities.
6.4.11 Disaster Recovery and Business Continuity

1. The Successful Bidder shall provide information regarding how the proposed IHIP systems and data will be protected against single and multiple data center failures. What steps will be taken to restore data from damaged data centers and the timeframes involved, frequency of scheduled data center or centers, maintenance procedures and their impact on system performance and capacity, and, any other procedures and notifications such as hardware and software upgrades and how they will affect systems performance and/or uptime. Successful Bidder shall ensure that the IHIP system is protected against natural disasters, software failures, human error, and other contingencies that could interrupt services. Successful Bidder shall maintain a Business Continuity Plan (BCP) that includes a Disaster Recovery Plan. Upon contract award, the Successful Bidder shall propose Security policies and procedures.

2. The Successful Bidder shall produce a Disaster Recovery Plan as a deliverable,

3. The Successful Bidder shall document, define and provide a test Business Continuity Plan annually and meet Recovery Time Objectives (RTO) of 8 Hours and Recovery Point Objectives (RPO) of 2 Hours for IHIP application.

4. The exercise for Business Continuity Plan including Disaster Recovery Exercise be held at least once a year and report be shared to the nodal Government Officer.

5. As part of the bid response, the Successful Bidder shall provide documentation demonstrating the vendor’s ability to design, implement and document a Business Continuity Plan for the data center, systems and network.

6. The Bidder is expected to provide appropriate data replication strategy and technology to replicate data between DC and DR provided by the CHI.

6.4.12 Incident Management Process

The Successful Bidder shall support incident reporting and management. As part of the bid response, Successful Bidder shall provide examples of the following: Escalation policy; Emergency contact process; and Incident response process.

6.4.13 System and Data Transition

6.4.13.1 Data Transition

The Successful Bidder shall provide technical assistance transferring the IHIP data to a new or replacement system. Following the expiration or termination of the Contract for any reason, the Successful Bidder shall ensure that CHI has exclusive access to and control of the IHIP data in a format reasonably acceptable and without any additional cost to CHI.

Data Transition includes migration of user addresses, user credentials, saved messages, all inbound messages etc. The transition should involve complete knowledge transfer. Bidder will ensure that their resources would provide shadow support during the transition acting as Primary & Secondary Resource.

6.4.13.2 Service Transition Experience

The Successful bidder shall provide a mechanism to transition HIE operations support services to CHI staff or designee in the event it is necessary as determined by CHI.
6.4.14 Administrative Personnel
The IHIP Vendor shall provide a list of all Vendors’ workers who have administrative privileges or can access the IHIP. The IHIP/Successful Bidder shall provide resumes of Vendor’s data center staff to document professional experience. This list data center staff and their resumes shall be provided at regular intervals determined by CHI and/or upon request by CHI. Vendor’s employees and contacts that have administrative privileges or access must submit to and pass background checks & Police verification before such privileges or access is granted. IHIP/Successful Bidder shall assume the cost of background checks.

6.4.15 System Administrative Services
The Successful Bidder shall provide its documented approach to maintain logins, access and consent management for the HIE, distinguishing between functionality and services.

1. The Successful Bidder shall document and implement network protection capabilities to detect and eliminate malicious software and/or unauthorized external connection attempts on network monitoring devices, servers, peripheral devices, and desktop workstations.
2. The Successful Bidder shall track the system and system administrator activities as captured in system logs using an appropriate log management system or toolset that routinely removes the log messages to a separate, protected collection server.
3. The Successful Bidder shall examine system and error logs daily to minimize and predict system problems and initiate appropriate action.
4. The Successful Bidder shall provide oversight of operator logs and ensure that the logs are checked on a regular base and against the Operating procedures. As part of the bid response, the Successful Bidder shall provide a copy of the administrative service Operating procedures.
5. The Successful Bidder shall provide system documentation protected from unauthorized access.

6.4.16 Software Upgrades
The IHIP Vendor shall be responsible for all software upgrades, including identification, timing, testing and implementation.

1. Successful Bidder shall provide a maintenance plan and approach regarding software and hardware (where applicable) upgrades, maintenance schedule, and defect correction process.
2. Successful Bidder shall install upgrades, updates, patches etc. to the software associated with the IHIP as approved by CHI.
3. New versions of the HIE technology solution components that are issued by the Successful Bidder within the duration of contract will be implemented as part of the IHIP within 60 calendar days of release as upgrades at no additional cost to CHI.
4. In the instance of third-party, the Successful Bidder shall test and apply patches for third-party software products before release.
6.4.17 Data Management

6.4.17.1 Database Administration

The Successful bidder shall provide its documented approach to administration and maintenance of secure databases, and shall specifically provide information regarding data security policies and procedures.

6.4.17.2 Data Encryption (Protection of Patient Data Regarding HIV/AIDS, Behavioural Health, Children, Etc.)

The Successful Bidder shall provide documentation outlining its experience with encrypting server based data and how effective its approach has proven in protecting data from unauthorized access. The Successful Bidder shall provide a list and descriptions of encryption standards it supports for storing data. The Successful Bidder shall provide recommendations and reasoning for designating specific IHIP data for encryption.

6.4.18 Compute Requirement

The Successful bidder will provide all required compute necessary to run the IHIP for a period of 5 years. The compute will include servers (Physical/virtual), Storage, RAM, OS, database licenses, Security Requirement etc. It is suggested that bidder will do careful exercise while analyzing the hardware and software requirement. The compute calculation is for Phase1 to Phase3 i.e. pilot phase only as mentioned in section 6.2.2.

In Proposal, bidder has to give details of compute provisioned in this project along with costing in year wise manner in the prescribed format (Annexure-4).

Following are the assumptions for calculation compute requirements:

1. Master Provider Index
   a. It is assumed that approximate 45k-50k providers will participate and the population of 30 Crores.
   b. An average 5-10 updates per year per provider record will be there.
   c. An average 15-20 queries per year per provider record will be made.
   d. An average 20 updates per year per patient record.
   e. An average 15 queries per year per patient record. Document registry

2. Shared Health Records
   a. An average of 20-25 clinical documents per patient per year.
   b. Expected average number of queries to be executed against the document registry per patient per year-2 times.
   c. Assumed required response time in seconds for a query returning fewer than 100 document metadata entries will be less than 5 seconds)
   d. Assumed required response time in seconds for a query returning more than 300 document metadata entries will be 5 seconds.

3. Document repository
   a. The repository to support provision of cross document patient summary with allergies, procedures, medications etc.
   b. The repository to support storing binary clinical document like PDFs, images and similar.
c. Expected document retrievals per patient per year - 5 times the number of average clinical document registered in the registry per patient per year.
d. Expected number of 30 kilobyte clinical document to be stored in the repository per patient per year.
e. 1-2 times the number of average clinical document registered in the registry per patient per year.
f. Expected average number of 100 kilobyte clinical documents to be stored in the repository per patient per year - 2-5 times the number of the average clinical document registered in the registry per patient per year.

4. Geography environment
   a. 24 hours per day is the HIE to be assumed to be actively used
   b. Healthcare providers are implicitly assumed to be accessing the HIE via clinician portal.
   c. Patients will be given access to the patient portal
   d. HIE system to support patient control over granting or withholding access to their records by different classes of clinical personnel (ex. my doctor can see all my documents, doctors, who are treating me (have a relationship with me) can see all my documents except these that I "hide", Doctors who are a relationship with me can see document.

6.4.19 Data Center
The Data Centre, DR along with necessary infrastructure will be provided by the CHI/MoHFW based on the requirement assessed by the SI as per section 6.4.18.

6.4.20 Training and Education
Selected vendor must develop a detailed capacity building program for implementation of the IHIP. The scope includes development of standard training plan for all users (CHI staff, staff of identified hospitals/departments in this RFP), development of training material and other resource documents, rollout of training plan, documentation and database management of all trainers trained. The overall capacity building plan also includes support to addressing routine queries, development of the guidelines and user resource manuals. In addition the vendor is also required to help build capacity for the analytics and use of information for evidence-based decision making. The training and education requirements include all applicable topics related to the following:

1. HIE solution architecture and design;
2. Strategic direction for the HIE solution;
3. HIE Vendor partner solution(s) and future partner strategy(s);
4. HIE technical operations;
5. HIE reporting tools; and
6. CHI staff will be fully trained in the IHIP participant on-boarding process including all development tools and technologies needed to develop, configure, validate, and implement interfaces between the IHIP and participant organization.
7. Time bound Grievance Redressal Mechanism where any stakeholder can register his/her genuine grievance for resolution

The HIE Vendor will also provide education and awareness programs as part of a user group community including webinars, newsletters, user group meetings, announcement conference calls, and other channels.
Finally, the HIE Vendor will be asked to provide periodic and adhoc education to the CHI leadership team on topics related to leading practices and/or education resource related to the state HIE market.

Training may be offered as online support, phone and email support, on-site training, or any combination thereof. At a minimum, training topics must include:

1. IHIP Enrollment;
2. HIE Services;
3. Registration;
4. Logging into the system; and
5. Data transport
6. Terminology services support
7. Integration registries with legacy systems

The HIE Vendor shall provide the following:

2. A training approach that will support initial training requirements.
3. A training approach that will support ongoing training requirements.
4. Proposal that includes web-based training modules.
5. Proposal that include in-person training.
6. Experience and options for courses and component training.
7. Staff education to maintain the confidentiality of sensitive information.
8. As part of the bid response, HIE Vendor shall provide a Training Plan including proposals for staffing approach.

The HIE Vendor proposal must address each of the above requirements.

6.4.21 Helpdesk and Technical Customer Support

The HIE Vendor shall manage the state-level shared services and provide help desk and technical diagnostic services 24x7x365. Such services should have a defined escalation path, response times, ticketing system with tracking, and management reporting to the CHI.

Specific HIE Vendor requirements include:

1. The HIE Vendor shall provide live technical support 24x7.
2. The HIE Vendor shall provide a ticketing system that offers open and closed ticket reporting services and the root cause analysis of all close ticket.
3. The HIE Vendor shall provide inbound caller support email satisfaction survey tools.
4. The HIE Vendor shall provide a ticketing system that tracks call volume by issue to help pinpoint trouble areas.
5. The HIE Vendor shall provide a ticketing system to track help desk statistics by engineer for ticket open time vs. time closed, knowledge, and resolution.
6. The HIE Vendor shall provide a ticketing system that offers management dashboard access and reporting to track availability and key performance indicators.
7. The HIE Vendor shall provide a ticketing system to provide “opt out” end user surveys.
8. The HIE Vendor shall provide a ticketing system that allows for automatic scheduled progress reports.
9. The HIE Vendor shall provide evidence of industry governing body certification and industry recognized certifications for help desk functions.

10. The HIE Vendor shall provide multiple communication tools for end user support: phone, chat, email, video, instant messaging as part of a unified communication system.

11. The HIE Vendor shall document, demonstrate and provide multi-tiered support staff based upon experience levels/certification.

12. The HIE Vendor shall support the system to offer a knowledge base of common problems to end users.

6.5 Project Management

6.5.1 Project Governance

Bidder shall be expected to propose the Governance structure as part of response to the RFP, which would be further, discussed and finalized mutually between Bidder and CHI team at the time of on boarding. However, some of the key requirements for governance of this project in the following manners:

6.5.1.1 Project Management Committee

1. The Bidder shall participate in periodic Project Management Committee meetings and update Project Management Committee on Project progress, Risk parameters (if any), Resource requirements, immediate next project steps, and any obstacles in project.

2. All relevant records of proceedings of Project Management Committee should be maintained and shared with the Project Management Committee members and Project Management Office.

3. Other than the planned meetings, CHI may call for Project Management Committee meeting with prior notice to the Bidder.

4. The Project Management Committee will consist of stakeholders from CHI, its nominated agencies (if required) & stakeholders from Bidder.

6.5.1.2 Transition and Exit Management

1. At the end of the contract period or during the contract period, if any other agency is identified or selected for providing services related to Bidder’s scope of work. The bidder needs to ensure a smooth transition to new agency/vendor.

2. Bidder shall properly document all risk during transition stage and mitigation measures should be planned in advance so as to ensure smooth transition without any service disruption. It should also be part of SRS document.

3. The transition plan along with period shall be mutually agreed between Bidder and CHI and/or its designated agency when the situation occurs. Bidder shall be released from the project once successful transition is done meeting the parameters defined for successful transition.
6.6 Roles and Responsibilities

6.6.1 Roles and Responsibilities of Bidder
The bidders will have to share a roles and responsibilities matrix identifying clearly the following:

1. Roles and responsibilities of the IHIP Implementer
2. Key roles and responsibilities as expected from CHI (and their involvement (full time, part time, etc.))
3. Roles and responsibilities of various team members within the IHIP Implementer Project Team
4. Please provide information in annexure-2, form-3

6.6.2 CHI, Ministry of Health and Family Welfare, Government of India

1. CHI will provide support to the successful bidder in smooth coordination with the stakeholders.
2. CHI will constitute a TCC that will steer and monitor the project implementation, operation and support. Further, TCC will decide on the matters where clarity is required for project execution. In this regard, the decision of TCC would be final and binding on successful bidder. TCC for project will be responsible for following activities:
   3. Overall responsibility of steering and managing the project
   4. Monitoring the deliverables submitted by successful bidder, as well as coordination of operations
   5. Addressing all issues pertaining to the project including taking on the responsibility for the final sign off as well as annual performance review of the project
   6. Recommending extension of the project based on mutually accepted and agreed terms
   7. Recommending termination of contract on breach of contract terms and conditions (including those contained in RFP and related documents) by the successful bidder or otherwise
   8. Monitoring the performance of the successful bidder through SLAs as mentioned in this document
   9. Deciding on matters where further clarity is required for project execution. The decision of TCC would be final and binding
   10. Recommend on waiving off penalty
   11. Final approval on man effort proposed by successful bidder for Change Control Note (CCN)
   12. CHI will facilitate effective coordination between the successful bidder and the other authorities.
   13. CHI reserves the right to terminate the contract on breach of the contract terms and conditions (including those contained in RFP and related documents) by the successful bidder or otherwise.
## Deliverables, Milestones and Timelines

The timeline will start from the date of LoI or workorder and is considered as ‘T’

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Deliverable</th>
<th>Time Lines (Weeks)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Milestone -1 (Project Preparation)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Project Plan and Inception reports</td>
<td>T+1</td>
</tr>
<tr>
<td>2.</td>
<td>Project Goals &amp; Objectives document</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Project Organization, Standards and committee</td>
<td></td>
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<tr>
<td>4.</td>
<td>Implementation Strategy Document</td>
<td></td>
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<tr>
<td>5.</td>
<td>Project Charter</td>
<td></td>
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<tr>
<td>6.</td>
<td>Kick-off presentation document</td>
<td></td>
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<tr>
<td>7.</td>
<td>Project Preparation Sign-off Document</td>
<td></td>
</tr>
<tr>
<td><strong>Milestone-2 (Study of Government Processes/ Systems and Preparation of Control Specification Document for IHIP)</strong></td>
<td></td>
<td>T+4</td>
</tr>
<tr>
<td>10.</td>
<td>Gap Assessment Report</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>FRSM Document</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>SRS Document</td>
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</tr>
<tr>
<td>13.</td>
<td>Risk and Contingency Planning documents</td>
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<tr>
<td>14.</td>
<td>Test server &amp; Development server Installation Document</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Hardware sizing specification and other documentations.</td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>Delivery of any External Software &amp; Hardware (If applicable)</td>
<td></td>
</tr>
<tr>
<td><strong>Milestone-3 (Designing and Development of IHIP)</strong></td>
<td></td>
<td>T+8</td>
</tr>
<tr>
<td>17.</td>
<td>User interface designs;</td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>Presentation of POC (Proof of Concept)</td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>Customization / Development of IHIP</td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>Customization / Development of Web Portals</td>
<td></td>
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<tr>
<td>21.</td>
<td>Designing of Registry Services</td>
<td></td>
</tr>
<tr>
<td>22.</td>
<td>Weekly Progress Report</td>
<td></td>
</tr>
<tr>
<td>23.</td>
<td>Review of completed activities</td>
<td></td>
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<tr>
<td>24.</td>
<td>TRSM Documents</td>
<td></td>
</tr>
<tr>
<td>25.</td>
<td>Identifying &amp; Resolving of any problems or issues</td>
<td></td>
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<tr>
<td>26.</td>
<td>Test server &amp; Development server Installation Document</td>
<td></td>
</tr>
<tr>
<td>27.</td>
<td>And any other document, as may be necessary.</td>
<td></td>
</tr>
<tr>
<td><strong>Milestone-4 (UAT and Testing)</strong></td>
<td></td>
<td>T+12</td>
</tr>
<tr>
<td>28.</td>
<td>Test plans, Test scenarios,</td>
<td></td>
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<tr>
<td>29.</td>
<td>Comprehensive set of UAT Test Cases and sample test data</td>
<td></td>
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<tr>
<td>30.</td>
<td>Performance Benchmarking sign off</td>
<td></td>
</tr>
<tr>
<td>31.</td>
<td>All testing Document</td>
<td></td>
</tr>
<tr>
<td>32.</td>
<td>Production server Installation Document</td>
<td></td>
</tr>
<tr>
<td>33.</td>
<td>Issue Log &amp; Resolution Document</td>
<td></td>
</tr>
<tr>
<td>34.</td>
<td>UAT Acceptance and Security Review Certificate &amp; Security Audit from</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CERT-IN or its empaneled agency</td>
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<td></td>
</tr>
<tr>
<td>35.</td>
<td>User and Technical Documentation</td>
<td></td>
</tr>
<tr>
<td>36.</td>
<td>Functional &amp; Technical Specifications for customizations</td>
<td></td>
</tr>
<tr>
<td>37.</td>
<td>Training Material</td>
<td></td>
</tr>
</tbody>
</table>

**Milestone-5 (Acceptance Testing and Go-Live) for Phase-1**
- 38. Implementation of HIE, EHR, Portal, Consent Management
- 39. Integration with provider and states
- 40. Implementation of Security architecture & services
- 41. Functional Testing & GIGW Certification of the Web Portals & Application developed from STQC
- 42. Obtaining Acceptance Testing and Achieving Go-Live for Phase-1

**Milestone-6 Implementation of Phase-2**
- 43. Integration with Provider and states
- 44. Obtaining Acceptance Testing and Achieving Go-Live for Phase-2

**Milestone-7 Implementation of Phase-3**
- 45. Integration with Provider and states
- 46. Obtaining Acceptance Testing and Achieving Go-Live for Phase-3

**Milestone-8 (Hosting Services and Operation and Maintenance) after completion of Phase-3**
- Onwards till the completion of Project

**Successful bidder has to submit weekly/Monthly progress report of the project to CHI/MoHFW**
8 Payments terms, Service Level Agreement and Penalties

8.1 Payment terms

The commercial bid submitted by the Bidder must be in conformity with the payment terms proposed. Any deviation from the proposed payment terms would not be accepted. The CHI shall have the right to withhold any payment due to the Bidder, in case of delays or defaults on the part of the Bidder. Such withholding of payment shall not amount to a default on the part of the CHI. However, Payment of the Bills would be payable, on receipt of advice/confirmation for satisfactory delivery/installation/re-installation, live running and service report from the concerned sites and nodal officers appointed for the purpose where the software will have been delivered.

CHI may also undertake third party audit for the software implemented and rolled out at the identified locations.

The Payments made to successful bidder will be divided into two stages:

1. Implementation Phase
2. Operation and Maintenance Phase

8.1.1 Implementation Phase Payments
The implementation phase payment will be given to successful bidder in two part (80% + 20%). The disbursement details of 80% implementation payment will be as per the below table:-

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Milestones (As per Section 7)</th>
<th>Payment %</th>
<th>Time Lines (Weeks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Milestone-1</td>
<td>No Payment</td>
<td>T+1</td>
</tr>
<tr>
<td>2</td>
<td>Milestone-2</td>
<td>10% of Implementation Phase</td>
<td>T+4</td>
</tr>
<tr>
<td>3</td>
<td>Milestone-3</td>
<td>10% of Implementation Phase</td>
<td>T+8</td>
</tr>
<tr>
<td>4</td>
<td>Milestone-4</td>
<td>20% of Implementation Phase</td>
<td>T+12</td>
</tr>
<tr>
<td>5</td>
<td>Milestone-5</td>
<td>30% of Implementation Phase</td>
<td>T+16</td>
</tr>
<tr>
<td>6</td>
<td>Milestone-6</td>
<td>10% of Implementation Phase</td>
<td>T+32</td>
</tr>
<tr>
<td>7</td>
<td>Milestone-7</td>
<td>20% of Implementation Phase</td>
<td>T+52</td>
</tr>
</tbody>
</table>

The rest 20% of the implementation payment will be disbursed in four years after successful completion of quarter.

8.1.2 Operation & Maintenance Phase Payments
The Operational & Maintenance Phase payment will be made quarterly after deducting penalty after the end of quarter.

8.2 Service Level Requirements (SLR) and Penalties

The CHI will monitor the performance of the contract issued under this RFP. All services and deliverables under the contract shall be provided to the CHI at an acceptable quality level and in a manner consistent with acceptable industry standard, custom, and practice.
8.2.1 General Conditions of SLA

1. The System Integrator should ensure IHIP accessibility meeting SLA of 99.98% measured on a monthly basis should be maintained (which includes, but not limited to, all components like Server, Database, Operating system, System Upgrades, IHIP applications etc.)

2. Planned outages should be done twice in a year, with prior notice to CHI. The same may be displayed on the site and communicated to all stakeholders with available means like email, SMS etc. (at least 7 working days), not coinciding with working hours (09:00 to 23:59 Hours).

3. Schedule for planned outages of hosting environment should be provided to CHI at the starting of each Financial Year/ Calendar Year.

4. Uptime will be computed based on availability of the applications to the IHIP users irrespective of availability of servers either individual servers/clusters. Also, noncompliance with performance parameters for business, network and environmental infrastructure and system / Service degradation will be considered for downtime calculation.

5. In case of emergency outages, prior notice should be given at least 1 working day before Scheduled & Emergency downtime will not be considered as a part of SLA. Response may be telephonic or onsite. In case the issue cannot be resolved telephonically, the Bidder will need to provide onsite assistance within response resolution window.

6. Service Levels should be complied with irrespective of the customizations that the applications would undergo during the tenor of the Contract.

7. Typical Resolution time will be applicable if systems are not available to the IHIP’s users and customers and there is a denial of service.

8. The bidder should provide automated monitoring tool for SLA reporting and Helpdesk ticketing system. All SLAs should be configured in the monitoring tool which gives alerts in the event of breach of SLA or any downtime.

9. Service Levels should be complied with irrespective of the customizations that the applications would undergo during the tenor of the Contract.

10. The Availability/uptime is calculated as

\[
\text{Availability} = \frac{\text{Uptime}}{\text{Uptime} + \text{Downtime}}
\]

11. Mean Time Between Failures (MTBF) and Mean Time To Repair (MTTR) should be reported in weekly, monthly and annual report.

8.2.2 Level Classifications

A business impact can be defined on level of severity in terms of the magnitude of business disruption, an indicative list of issues covered under various levels is provided below:

<table>
<thead>
<tr>
<th>Criticality</th>
<th>Description</th>
<th>Response Time</th>
<th>Resolution Time</th>
</tr>
</thead>
</table>
| Level-1 - Severe Incident | 1. Severe outage causing Multiple Locations impacted.  
2. Major Accessibility Issue - Any problem due to which 50 or more users cannot access the application/portal systems. Or a complete hospital cannot access the System  
3. Failure of any of the co-existence software component due to which the solution is not functioning  
4. Unavailability of IHIP solution to users  
5. Data breach, intrusion, Virus attack, Denial of Service. | 15 Minutes | 2 Hours |
| Level 2 – Significant Incident | 1. Significant degradation or outage affecting a key Service or location.  
2. No user can access the IHIP system Any problem due to which 6 to 49 or more users cannot access the application/portal systems  
3. Any module or component of IHIP System is unavailable for use | 30 Minutes | 4 Hours |
|--------------------------|---------------------------------------------------------------------------------|----------|--------|
| Level 3 / Limited Incident | 1. Minor degradation to a key Service, business process or location or a more severe degradation or outage to a noncritical Services, business processor location  
2. Has the potential to turn into a major incident if not resolved within a defined time Minor impact to a key Service, business process or location or a more severe impact to a noncritical process  
3. System outage or degradation impacting a minimal number of users  
4. Impact to internal workflow systems with limited risk to critical systems or processes  
5. Limited incident / Service alert  
6. Negligible business impact but an underlying problem that needs to be resolved  
7. Failure where Service continues to be provided via an alternate solution  
8. Can be tolerated or worked around for a reasonable period of time  
9. Application Change Management  
10. Software Issues with some business impact, but not critical  
11. Slow response for processing online requests like lead creation, service requests  
12. UAT environment affected | 2 Hours | 8 Hours |
| Level 4 / Routine Incident | 13. Any routine issue  
14. Limited or minor business impact  
15. Can either be tolerated or worked around for an extended period of time  
16. The identified issue has almost no impact in terms of Business. However, issue needs the attention of the Bidder and shall be fixed on lesser priority  
17. The request for information, request for root cause analysis, an enhancement or documentation clarification regarding the solution but there is no impact on the operations of the solution. | 8 Hours | 24 Hours |

Root Cause Analysis (RCA) should be provided for High Level Issue within 3 (three) days and for others, within 7 (seven) days.

**Note:** The resolution time will not considered as uptime. The penalties during the maximum resolution time will be as applicable in the table mentioned in clause 8.2.4 and for the time beyond the maximum resolution time, the penalty will be twice the applicable penalty.
8.2.3 SLR & Penalties in Implementation Phase

8.2.3.1 Penalties for Delayed Implementation

The Penalty would be deducted from the next payment being made to the System integrator/Successful bidder.

If the System integrator fails to achieve the completion of any of the milestone within the defined duration, following penalty will be applicable for deduction:

<table>
<thead>
<tr>
<th>Delay</th>
<th>Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 1 Week</td>
<td>Grace Period. No penalty</td>
</tr>
<tr>
<td>1 – 2 Weeks</td>
<td>1% of Implementation Phase</td>
</tr>
<tr>
<td>2 – 3 Weeks</td>
<td>2% of Implementation Phase</td>
</tr>
<tr>
<td>3 – 4 Weeks</td>
<td>3% of Implementation Phase</td>
</tr>
<tr>
<td>4 – 5 Weeks</td>
<td>6% of Implementation Phase</td>
</tr>
<tr>
<td>5 – 6 weeks</td>
<td>8% of Implementation Phase</td>
</tr>
<tr>
<td>&gt;6 weeks</td>
<td>10% of Implementation Phase and option to terminate the contract.</td>
</tr>
</tbody>
</table>

8.2.3.2 Application Implementation

<table>
<thead>
<tr>
<th>Service Level Description</th>
<th>Measurement</th>
<th>Minimum Service Level</th>
<th>Measurement Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gap/Bugs/Defects resolution</td>
<td>All gaps observed in the functional specifications, current system study, training, business process re-engineering, parameterization, testing and Launch implementation shall be resolved within defined and mutually agreed time frames.</td>
<td>99%</td>
<td>Automated Tool or Manually Tracked during the testing</td>
</tr>
<tr>
<td>Gap/Bugs/Defects reporting</td>
<td>The Bidder shall ensure that all bugs reported by the users / testing team will be duly logged and assigned a unique ID for reference purposes.</td>
<td>100%</td>
<td>Automated Tool or Manually Tracked during the testing</td>
</tr>
<tr>
<td>Critical Gaps/Bugs/Defects</td>
<td>The Bidder shall ensure that all bugs reported by the users / testing team will be resolved within one hour from reporting.</td>
<td>100%</td>
<td>Automated Tool or Manually Tracked during the testing</td>
</tr>
<tr>
<td>Gap/Bugs/Defects resolution</td>
<td>The Bidder shall ensure that all bugs reported by the users / testing team will be duly resolved maximum within three calendar days or as per the UAT approach agreed between CHI and Bidder.</td>
<td>99%</td>
<td>Automated Tool or Manually Tracked during the testing</td>
</tr>
<tr>
<td>Modifications/Enhancements Resolution</td>
<td>The Bidder shall ensure that all modifications, enhancements reported by the CHI will be duly sized, agreed with the CHI and resolved as per the agreed timeframes</td>
<td>99%</td>
<td>Automated Tool or Manually Tracked during the testing</td>
</tr>
</tbody>
</table>
In any case, the total penalty amount shall not be greater than 10% of the total cost of the implementation stage. The CHI may carry out the work at the risk and cost of SI if they fail to achieve the milestone with reasonable period or period decided by the department. Time extension can be consider if the delay is not on the part of the SI.

### 8.2.3.3 Success Fee (Rewards)

In case the SI manage to complete the project before time, a success fee has provisioned. The success fee would be payable on completion of milestones in the following manner:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Milestone</th>
<th>Amount %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>One week before the proposed completion date of Milestone 5</td>
<td>Additional 1% Payment Cumulative Payment of Milestone 1 to 5</td>
</tr>
<tr>
<td>2</td>
<td>Four week before the proposed completion date of Milestone 7</td>
<td>Additional 1% payment Cumulative of Milestone 6 and 7.</td>
</tr>
</tbody>
</table>

### 8.2.4 Service Level Requirement for Operation Stage

1. Service levels will include Availability measurements and Performance parameters.
2. The Bidder shall provide Availability Report on monthly basis and a review shall be conducted based on this report. A monthly report shall be provided to the CHI at the end of last month containing the summary of all incidents reported, TAT for resolution and associated Bidder performance measurement for that period.
3. Performance measurements will be accessed through audits or reports, as appropriate to be provided by the Bidder e.g. utilization reports, response time measurements reports, etc. The tools/solutions to perform the audit will need to be provided by the Bidder. Audits will normally be done on regular basis or as required by CHI and will be performed by CHI or CHI appointed third party agencies.

### 8.2.4.1 Performance measurements

<table>
<thead>
<tr>
<th>Type of Infrastructure</th>
<th>Measurement</th>
<th>Minimum Service level</th>
<th>Minimum Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Availability</td>
<td>Uptime and availability of application for users</td>
<td>99.98%</td>
<td>CHI will measure this through periodic audits based on logs to be provided by Bidder or through independent Third Party Audit Report</td>
</tr>
<tr>
<td>Backup Success Rate</td>
<td>Backup success rate for all the solutions proposed as per the RFP.</td>
<td>99%</td>
<td>CHI will measure this through periodic audits based on logs to be provided by Bidder or through independent Third Party Audit Report</td>
</tr>
<tr>
<td>System Response Time</td>
<td>End to end response time should be &lt; 5 seconds (end user to application and back) at on intranet</td>
<td>99%</td>
<td>CHI will measure this through periodic audits based on logs to be provided by Bidder or through independent Third Party Audit Report</td>
</tr>
<tr>
<td>Software Service Requests</td>
<td>Percentage of Software Service Requests concluded (patches, bug fixes, errors) within defined response-resolution window.</td>
<td>98%</td>
<td>CHI will measure this through periodic audits based on logs to be provided by Bidder or through independent Third Party Audit Report</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Incident Management</td>
<td>Percentage of incidents escalated</td>
<td>99%</td>
<td>CHI will measure this through periodic audits based on logs to be provided by Bidder or through independent Third Party Audit Report</td>
</tr>
<tr>
<td>Disaster Recovery Site</td>
<td>Business operations to resume from Disaster Recovery Site within 15 minutes of the Data Centre failing. All applications as part of the Solution should be designed with the following parameters RPO – 2 Hours RTO – 8 Hours</td>
<td>100%</td>
<td>CHI will measure this through periodic audits based on logs to be provided by Bidder or through independent Third Party Audit Report</td>
</tr>
</tbody>
</table>

### 8.2.5 Penalties

1. Application Utility and Application Downtime would be the key considerations for determining the “Penalties” that would be levied on the Bidder for “Non-Adherence” to the SLA for the Services offered.
2. The inability of the Bidder to provide the requirements as per the scope or to meet the deadlines as specified would be treated as breach of contract and invoke the Penalties.
3. If failure of any component leads to Application Downtime more than thrice within a span of three months, then the Bidder is expected to replace/modify the component / at Bidder’s own cost.
4. Availability Service level will be measured on a monthly basis, however, penalties will be adjusted from invoices on pro-rata basis.
5. Availability Service Levels will be assessed against Minimum Service Level requirements for each criteria mentioned above
6. An Availability Service Level Default will occur when:
   - The Bidder fails to meet Minimum Service Levels, as measured on a monthly basis, for a particular Service Level.
7. In the event of an Availability Service level default, the Bidder shall pay the CHI a ‘Penalty’ that will be computed in accordance with the following formula:
   - Monthly Service Level Default = Minimum Service level – Monthly Actual Service level
- Monthly Service Level Default cannot be less than zero. (If for a particular period the actual Service level is above the minimum Service level then the monthly Service level default will be zero and not less than zero)
- Quarterly Service level default = Total of the monthly service level defaults for all the 3 months
- Quarterly Service penalty = Quarterly Service level default * Total Quarterly cost of stage

8. The applicable “Penalties” would be the same irrespective of the root causes.

Example:
Assume for a particular Service Level Agreement, the minimum Service level is 99%. During a Service Assessment period, Service level achieved for 3 months as below:

<table>
<thead>
<tr>
<th>Month</th>
<th>Minimum Service Level</th>
<th>Monthly Actual Service level</th>
<th>Monthly Service level default</th>
<th>Service level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Month-1</td>
<td>99%</td>
<td>95%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Month-2</td>
<td>99%</td>
<td>100%</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Month-3</td>
<td>99%</td>
<td>96%</td>
<td>3%</td>
<td></td>
</tr>
</tbody>
</table>

Quarterly Service Level Default = 7%

Quarterly Service Penalty = 7%*Quarterly cost.

The maximum penalty cap for Implementation Period is 10% of implementation cost and option to terminate the contract.

The maximum penalty cap for O&M Period is 10% of O&M cost and the option to terminate the contract.
9 Acceptance Testing and Go Live

1. Testing & Acceptance: The SI shall provide standard functionality test suites for testing the modules. For software the SI shall prepare the test plan and shall get it approved by CHI. Test Data for different scenario (Test Cases) will be prepared in consultation with the users concerned for testing the modules. The pre-commissioning tests shall be carried out to assess the following but not limited to:
   1. Conformance to the functional requirements,
   2. Performance of the system with reference to response time and accuracy,
   3. User friendliness.
   4. Simultaneously, the documentation will also be reviewed by the CHI to ensure its accuracy and clarity.

The IHIP solution will be functional and load tested by the STQC before go-Live

2. System Testing: The System Integrator is required to prepare procedures detailing the steps for conducting System Tests, which are accepted by CHI. The System Integrator after development and customization/configuration of the IHIP Solution, conduct tests to demonstrate that the system meets all the requirements (functional and technical) specifications as brought out in this RFP and would be in accordance with the procedures detailed in approved To-Be process document.

3. Security Testing: The IHIP application should be security audited from reputed cert-in empaneled testing firm prior to deployment into production server/ or before go-live of the project. The CHI will decide audit agency and the payment of the same will be borne by the successful bidder. IHIP application should be regularly audited from the cert-in empaneled agency. The frequency will be six monthly or in case of major change in the application or module. All the expenses of security testing should be borne by the bidder.

4. GIGW Audit: The portals should be as per the guidelines of GIGW and the same has to be certified from STQC.

5. On the basis of these tests, a report would be submitted by the System Integrator for review and approval by CHI. The test results and response times should be demonstrated by the SI during the testing phases (System, integration & Stress and Load testing) in an environment/infrastructure as mutually agreed upon by CHI and the SI.

6. Developing a Test Plan to support Function Testing and System/ Integration Testing and ensuring that the testing of the software is comprehensive, auditable, and preparing test cases for User Acceptance Testing (UAT).

7. Testing of the entire new system, as part of system integration testing. And testing of the data conversion and migration to the new system, as part of system integration testing. Integration testing shall be carried out to ensure cross function modules are integrated and transaction data is flowing across the modules accurately.

8. Developing acceptance test procedures to ensure conformance to the required process operations response time, the integrity of the software after installation, and to eliminate any operational bugs. This will include:
9. Fine tuning of the software, ensuring all required related component software are installed and any debugging required.

10. The IHIP solution will be considered Go-Live (Implemented), when all above conditions are met and the identified participants in all the phases will be integrated to IHIP and successful exchange of EHR data between identified participants for a period of one month.

10 Fraud and Corrupt Practices

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

2. Without prejudice to the rights of the CHI under Clause above and the rights and remedies which the CHI may have under the LOI or the Agreement, if an Bidder or Systems Implementation Agency, as the case may be, is found by the Authority to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Selection Process, or after the issue of the LOI or the execution of the Agreement, such Bidder or Systems Implementation Agency shall not be eligible to participate in any tender or RFP issued by the CHI during a period of <2 (two) years> from the date such Bidder or Systems Implementation Agency, as the case may be, is found by the CHI to have directly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as the case may be.

3. For the purposes of this Section, the following terms shall have the meaning hereinafter respectively assigned to them:

   a. “corrupt practice” means

      i. the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of any person connected with the Selection Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of the CHI who is or has been associated in any manner, directly or indirectly with the Selection Process or the LOI or has dealt with matters concerning the Agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the
CHI, shall be deemed to constitute influencing the actions of a person connected with the Selection Process; or

II. save as provided herein, engaging in any manner whatsoever, whether during the Selection Process or after the issue of the LOA or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOA or the Agreement, who at any time has been or is a legal, financial or technical consultant/ adviser of the CHI in relation to any matter concerning the Project;

b. “fraudulent practice” means a misrepresentation or omission of facts or disclosure of incomplete facts, in order to influence the Selection Process;

c. “coercive practice” means impairing or harming or threatening to impair or harm, directly or indirectly, any persons or property to influence any person’s participation or action in the Selection Process;

d. “undesirable practice” means

(i) establishing contact with any person connected with or employed or engaged by CHI with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Selection Process; or

(ii) having a Conflict of Interest; and

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

11 Conflict of Interest

1. A bidder shall not have a conflict of interest that may affect the Selection Process or the Solution delivery (the “Conflict of Interest”). Any Bidder found to have a Conflict of Interest shall be disqualified. In the event of disqualification, the CHI shall forfeit and appropriate the EMD, if available, as mutually agreed genuine pre-estimated compensation and damages payable to the CHI for, inter alia, the time, cost and effort of the CHI including consideration of such Bidder’s Proposal, without prejudice to any other right or remedy that may be available to the CHI hereunder or otherwise.

2. The CHI requires that the Implementation Agency provides solutions which at all times hold the CHI’s interests paramount, avoid conflicts with other assignments or its own interests, and act without any consideration for future work. The Systems Implementation Agency shall not accept or engage in any assignment that would be in conflict with its prior or current obligations to other clients, or that may place it in a position of not being able to carry out the assignment in the best interests of the CHI.

3. Without limiting the generality of the above, an Bidder shall be deemed to have a Conflict of Interest affecting the Selection Process, if:

a. the Bidder, its consortium member (the “Member”) or Associates (or any constituent thereof) and any other Bidder, its consortium member or Associate (or any constituent
thereof) have common controlling shareholders or other ownership interest; provided that this disqualification shall not apply in cases where the direct or indirect shareholding or ownership interest of an Bidder, its Member or Associate (or any shareholder thereof having a shareholding of more than 5 per cent of the paid up and subscribed share capital of such Bidder, Member or Associate, as the case may be) in the other Bidder, its consortium member or Associate is less than 5% (five per cent) of the subscribed and paid up equity share capital thereof. For the purposes of this Clause, indirect shareholding held through one or more intermediate persons shall be computed as follows:
- where any intermediary controlled by a person through management control or otherwise, the entire shareholding held by such controlled intermediary in any other person (the “Subject Person”) shall be taken into account for computing the shareholding of such controlling person in the Subject Person; where a person does not exercise control over an intermediary, which has shareholding in the Subject Person, the computation of indirect shareholding of such person in the Subject Person shall be undertaken on
  - a proportionate basis; provided, however, that no such shareholding shall be reckoned under this Sub-clause if the shareholding of such person in the intermediary is less than 26% (twenty six per cent) of the subscribed and paid up equity shareholding of such intermediary; or
  a. A constituent of such Bidder is also a constituent of another Bidder; or
  b. such Bidder or its Associate receives or has received any direct or indirect subsidy or grant from any other Bidder or its Associate; or
  c. such Bidder has the same legal representative for purposes of this Application as any other Bidder; or
  d. such Bidder has a relationship with another Bidder, directly or through common third parties, that puts them in a position to have access to each other’s information about, or to influence the Application of either or each of the other Bidder; or
  e. There is a conflict among this and other Systems Implementation/Turnkey solution assignments of the Bidder (including its personnel and other members, if any) and any subsidiaries or entities controlled by such Bidder or having common controlling shareholders. The duties of the Systems Implementation Agency will depend on the circumstances of each case. While providing software implementation and related solutions to the CHI for this particular assignment, the Systems Implementation Agency shall not take up any assignment that by its nature will result in conflict with the present assignment; or
  f. A firm hired to provide System Integration/Turnkey solutions for the implementation of a project, and its Members or Associates, will be disqualified from subsequently providing goods or works or services related to the same project;
4. An Bidder eventually appointed to implement software solutions for this Project, its Associates, affiliates and the Financial Expert, shall be disqualified from subsequently providing goods or works or services related to the construction and operation of the same Project and any breach of this obligation shall be construed as Conflict of Interest; provided that the restriction herein shall not apply after a period of 12 months from the completion of this assignment; provided further that this restriction shall not apply to software solutions delivered to the CHI in continuation of this systems implementation or to any subsequent systems implementation executed for the CHI in accordance with the rules of the CHI.

12 Consortium

Consortiums are allowed for the project so that required expertise can be brought upon by the consortium member for the implementation of the project. For the activities of the project that are carried out by the consortium member, the prime bidder shall be responsible for consortium member’s act and conduct as well as for the entire activity that is being carried out by the consortium member. In case of consortium, the following additional requirements should be complied with:

1. The number of members in a consortium shall not be more than three (3), i.e. one prime bidder and 2 other consortium member.

2. The bid should contain details of all the members of the consortium including their legal status as well as the Memorandum of Agreement / Consortium Agreement.

3. Prime bidder or consortium members can participate in only one bid. In case prime bidder or consortium members participates in other consortium bids, all such bids will be rejected.

4. Bidder(s) need to sign a consortium agreement clearly defining their roles and responsibilities for execution of this project. One of the consortium members will be nominated as prime bidder which should be supported with a documentary proof in the form of MoA (Memorandum of Agreement) / Consortium Agreement.

5. Nothing in this MoA / Consortium Agreement shall constitute, create or give effect or recognize a joint venture, partnership or business entity of any kind.

6. The MoA / Consortium Agreement shall be governed by the laws of India.

7. Any matter, which is not stipulated in the MoA / Consortium Agreement, shall be settled in good faith by discussion among the parties in the spirit of understanding and cooperation in the favor of the project.

8. Where the prime bidder / any of the consortium member’s ability to survive as an independent corporate entity is threatened or is lost owing to any reason whatsoever, including inter alia the filing of any bankruptcy proceedings against the prime bidder or its consortium members, any failure by the prime bidder or its consortium member to pay any of its dues to its creditors, the institution of any winding up proceedings against the prime bidder / consortium member or the happening of any such events that are adverse to the commercial viability of the prime bidder / consortium member, CHI shall reserve the right to take any steps as deemed necessary, to ensure the effective transition of the project to a successor agency and to ensure business continuity.
Manner influencing or attempting to influence the selection process; or (ii) having a conflict of interest;

and

“Restrictive practice” means forming a cartel or arriving at any understanding or arrangement among bidders with the objective of restricting or manipulating a full and fair competition in the selection process.

13 Multiple Responses

A bidder may only submit one proposal as a prime contractor. If a bidder submits more than one proposal, the CHI may reject one or more of the submissions. This requirement does not limit a subcontractor’s ability to collaborate with one or more bidders submitting proposal.

14 Indemnity

The Bidder’s should indemnify CHI (including its employees, directors or representatives) from and against claims, losses, and liabilities arising from:

1. Non-compliance of the Bidder with Laws/Governmental requirements IP infringement
2. Negligence and misconduct of the Bidder, its employees, and its vendors
3. Indemnity would be limited to court awarded damages and shall exclude indirect, consequential and incidental damages. However, indemnity would cover damages, loss or liabilities suffered by CHI arising out of claims made by its customers and/or regulatory authorities.

The Bidder shall not indemnify CHI for

1. Any loss of profits, revenue, contracts, or anticipated savings or
2. Any consequential or indirect loss or damage however caused.

15 Inspection of records

All Bidder records with respect to any matters covered by this RFP shall be made available to CHI or its designees at any time during normal business hours, as often as CHI deems necessary, to audit, examine, and make excerpts or transcripts of all relevant data. Said records are subject to examination. CHI would execute confidentiality agreement with the Bidder, provided that the auditors would be permitted to submit their findings to CHI, which would be used by CHI. The cost of the audit will be borne by CHI. The scope of such audit would be limited to Service Levels being covered under this RFP and subsequent contract, and financial information would be excluded from such inspection, which will be subject to the requirements of statutory and regulatory authorities. The Bidder’s records and sites managed for CHI shall also be subject to Regulator/CHI inspection.
16 Publicity

Any publicity by the Bidder in which the name of CHI, MoHFW, IHIP and its IPR and copyrights is to be used, should be done only with the explicit written permission from CHI.

17 Force Majeure

1. Definition:
   a. For the purposes of this Contract, “Force Majeure” means an event which is beyond the reasonable control of a Party, is not foreseeable, is unavoidable and not brought about by or at the instance of the Party claiming to be affected by such events and which has caused the non-performance or delay in performance, and which makes a Party’s performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible in the circumstances, and includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other extreme adverse weather conditions, strikes, lockouts or other industrial action (except where such strikes, lockouts or other industrial action are within the power of the Party invoking Force Majeure to prevent), confiscation or any other action by Government Agencies.
   b. Force Majeure shall not include:
      • Any event which is caused by the negligence or intentional action of a Party or by or of such Party’s Sub-Consultants or Employees, or
      • Any event which a diligent Party could reasonably have been expected both to take into account at the time of the conclusion of this Contract, and avoid or overcome in the carrying out of its obligations hereunder.
   c. Force Majeure shall not include insufficiency of funds or inability to make any payment required hereunder.

2. No Breach of Contract:
   • The failure of a Party to fulfil any of its obligations hereunder shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event has taken all reasonable precautions, due care and reasonable alternative measures, all with the objective of carrying out the terms and conditions of this Contract.

3. Measures to be taken:
   a. A Party affected by an event of Force Majeure shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall take all reasonable measures to minimize the consequences of any event of Force Majeure.
   b. A Party affected by an event of Force Majeure shall notify the other Party of such event as soon as possible, and in any case not later than fourteen (14) days following the occurrence of such event, providing evidence of the nature and cause of such event, and
shall similarly give written notice of the restoration of normal conditions as soon as possible.

c. Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

d. During the period of their inability to perform the Services as a result of an event of Force Majeure, the Bidder, upon instructions by CHI, shall either:
   • demobilize; or
   • Continue with the Services to the extent possible, in which case they shall continue to be paid proportionately and on pro rate basis, under the terms of this Contract.

e. In the case of disagreement between the Parties as to the existence or extent of Force Majeure, the matter shall be settled according to Clause 18.

18 Resolution of disputes

CHI and the Bidder shall make every effort to resolve amicably, by direct informal discussions between the respective Project Managers of CHI and the Bidder, any disagreement or dispute arising between them under or in connection with the Contract. If CHI’s Project Manager and the Bidder’s Project Manager are unable to resolve the dispute they shall immediately escalate the dispute to the senior authorized personnel designated by the Bidder and CHI respectively. If after thirty days from the commencement of such discussions between the senior authorized personnel designated by the Bidder and CHI, CHI and the Bidder have been unable to resolve amicably a Contract dispute; either party may require that the dispute be referred for resolution through formal arbitration. All questions, claims, disputes or differences arising under and out of, or in connection with the Contract or carrying out of the work whether during the progress of the work or after the completion and whether before or after the determination, abandonment or breach of the Contract shall be referred to arbitration by a sole Arbitrator acceptable to both parties failing which the number of arbitrators shall be three, with each side to the dispute being entitled to engage one arbitrator. The two arbitrators engaged by the parties shall engage a third arbitrator who shall act as the presiding arbitrator. The Arbitration and Reconciliation Act, 1996 or any statutory modification thereof shall apply to the arbitration proceedings and the venue of the arbitration shall be New Delhi. The arbitration proceedings shall be conducted in English language. Subject to the above, the courts of law at New Delhi alone shall have the jurisdiction in respect of all matters connected with the Contract. The arbitration award shall be final, conclusive and binding upon the Parties and judgment may be entered thereon, upon the application of either Party to a court of competent jurisdiction. Each Party shall bear the cost of preparing and presenting its case, and the cost of arbitration, including fees and expenses of the arbitrators, shall be shared equally by the Parties unless the award otherwise provides.
19 Waiver

No failure or delay on the part of either party relating to the exercise of any right, power, privilege or remedy provided under this RFP document or subsequent agreement with the other party shall operate as a waiver of such right, power, privilege or remedy or as a waiver of any preceding or succeeding breach by the other party nor shall any single or partial exercise of any right power privilege or remedy preclude any other or further exercise of such or any other right power privilege or remedy provided in this RFP document all of which are several and cumulative and are not exclusive of each other or of any other rights or remedies otherwise available to either party at law or in equity.

20 Violation of terms

CHI clarifies that CHI shall be entitled to an injunction, restraining order, right for recovery, suit for specific performance or such other equitable relief as a court of competent jurisdiction may deem necessary or appropriate to restrain the Bidder from committing any violation or enforce the performance of the covenants, obligations and representations contained in this RFP document. These injunctive remedies are cumulative and are in addition to any other rights and remedies CHI may have at law or in equity, including without limitation a right for recovery of any amounts and related costs and a right for damages.

21 Termination for Default

CHI may, without prejudice to any other remedy for breach of contract, by 90 calendar days written notice of default sent to the SP, terminate the Contract in whole or in part:

1. If the Bidder fails to deliver any or all of the Solution and services within the time period(s) specified in the Contract, or any extension thereof granted by CHI; or
2. If the Bidder fails to perform any other obligation(s) under the Contract.

In the event of CHI terminating the Contract in whole or in part, pursuant to above mentioned clause, CHI may procure, upon such terms and in such manner, as it deems appropriate, goods and services similar to those undelivered and the Bidder shall be liable to CHI for any excess costs incurred for procurement of such similar goods or services. However, the bidder shall continue performance of the Contract to the extent not terminated.

22 Termination for Insolvency

CHI may, at any time, terminate the Contract by giving 90 calendar days written notice to the Bidder, without any compensation to the Bidder, whatsoever if:

1. The Bidder becomes bankrupt or otherwise insolvent, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to CHI.
2. The Bidder being a company is wound up voluntarily or by the order of a court or a receiver, or manager is appointed on behalf of the debenture/shareholders or circumstances occur
entitling the court or debenture/shareholders to appoint a receiver or a manager, provided that such termination will not prejudice or affect any right of action or remedy accrued or that might accrue thereafter to the CHI.

23 Termination for Convenience

Either party may, by 90 calendar days written notice sent to the other party, terminate the Contract, in whole or in part at any time of their convenience. The notice of termination shall specify the extent to which performance of work under the Contract is terminated, and the date upon which such termination becomes effective.

24 Information/Data Ownership

All information/data processed, stored, or transmitted by Bidder equipment belongs to CHI. By having the responsibility to maintain the equipment, the Bidder does not acquire implicit access rights to the information or rights to redistribute the information. The Bidder understands that civil, criminal, or administrative penalties may apply for failure to protect information appropriately.

In the event of a dispute regarding what data is or is not the IHIP Vendor’s data, CHI’s decision on the matter shall be final and not subject to appeal. Prior to completion or termination of the contract and on a schedule determined by CHI, the IHIP Vendor must take all necessary measures to assure that all IHIP data maintained in the hosted environment has been migrated exclusively to CHI.

25 Copyright Restriction

The CHI will not consider any proposals that bears copyright

26 Intellectual Property Rights (IPR)

1. The MOHFW/CHI will own the copyright in all deliverable materials created under this Agreement by Successful bidder. The Commercial Off-the-Shelf (COTS) products (if any) and their IPRs will be owned and controlled by the Original Equipment Manufacturers (OEMs) like IBM, Microsoft, Oracle, Sun and others. The IPR of any product or software which has been developed/enhanced/ modified/ configured by the Successful bidder shall be transferred to the MOHFW/CHI.

2. Ownership of all Intellectual Property Rights for any functional and technical process of MOHFW/CHI or Information or materials or MOHFW/CHI Supplied assets provided to Successful bidder by the MOHFW/CHI shall remain vested in the MOHFW/CHI.

3. MOHFW/CHI shall own all Intellectual Property Rights in all Assets procured, purchased and produced exclusively for the MOHFW/CHI by Successful bidder including improvements that are developed by Successful bidder for the MOHFW/CHI. Successful bidder shall execute necessary documents and instruments to perfect the ownership of MOHFW/CHI in respect of the aforesaid materials.
4. Materials — including but not limited to software, tools, processes, policies, and documentation (presentations) — developed by the Successful bidder / Service Provider or its subcontractors will be considered "works made for hire" for MOHFW/CHI ("Developed Materials"). Such Developed Materials shall belong exclusively to MOHFW/CHI. The Successful bidder may use such Developed Materials solely to provide the Services during the Term.

5. The Successful bidder shall irrevocably assign, transfer, and convey to MOHFW/CHI all right, title, interest, and ownership in such Developed Materials.

6. The Successful bidder shall promptly disclose in writing to MOHFW/CHI each instance of Developed Materials that is developed as a result of Services. With respect to each disclosure, the Service Provider shall indicate the features or concepts that it believes to be new or different.

7. For any Developed Materials, which are Software and for which the Source Code is not generally available to MOHFW/CHI, a current copy of such Source Code shall be maintained in escrow.

27 Sensitive Information

Any information considered sensitive must be protected by the Bidder from unauthorized disclosure, modification or access.

28 Technological Advancements

The Bidder agrees to incorporate all changes relating to the facilities being offered, announced by them from time to time keeping in view the advancement in technology, shortcomings of the facilities and services made available to CHI and any changes required for improving the overall efficiency of the hosting facilities and services.

29 Governing Language

The Contract shall be written in the language of the Bid i.e. English. All correspondence and other documents pertaining to the Contract, which is exchanged by the parties, shall be written in that same language. English Language version of the Contract shall govern its implementation.

30 Non-Disclosure Agreement

The successful bidder/consortium of bidder and its sub-contractors has to sign a non-Disclosure Agreement (NDA) with CHI.

31 Applicable Law

The Contract shall be interpreted in accordance with the Indian Laws for the time being in force and will be subject to the exclusive jurisdiction of Courts at Delhi (with the exclusion of all other prices.
The prices quoted (as mentioned in Annexure -4 –Price Schedule submitted by the Bidder) for the solution and services shall be firm throughout the period of Contract and shall not be subject to any escalation.

**32 Deduction**

Payments shall be subject to deductions (such as TDS) of any amount, for which the Bidder is liable under the agreement against this RFP.

**33 Taxes and Duties**

The prices quoted by the Bidder shall include all costs such as, taxes, levies, cess, excise, Octroi and custom duties, installation, commissioning, insurance, etc. as applicable in India, that need to be incurred. The Bidder has to quote the Service Tax, Swach Bharat Cess and VAT in separate columns. In case of any variation (upward or down ward) in Service tax, VAT or any other tax quoted which has been included as part of the Commercial Bid, such variation will be borne by or passed on to CHI. Any new applicable tax introduced by the Government after the submission of Bid will be borne by CHI. The entire benefits/ advantages, arising out of fall in prices, taxes, duties or any other reason, must be passed on to CHI.

**34 No Claim Certificate**

The bidder shall not be entitled to make any claim whatsoever against CHI under or by virtue of or arising out of this Contract, nor shall CHI entertain or consider any such claim, if made by the Bidder after he shall have signed a “No Claim” certificate in favor of CHI in such forms as shall be required by CHI after all payments due to Bidder are made in full.

**35 Limitation of Liability**

Bidder’s cumulative liability for its obligations under the Contract shall not exceed the Contract value and the Bidder shall not be liable for incidental/consequential or indirect damages including loss of profit or saving.

**36 Rights reserved by CHI**

1. Company reserves the right to accept or reject any or all Bids without assigning any reasons.
2. Company reserves the right to verify the validity of information given by the Bidders. If at any future point of time, it is found that the Bidder had made a statement, which is factually incorrect, CHI will reserve the right to debar the Bidder from bidding prospectively for a period to be decided by CHI and take any other action as maybe deemed necessary.
3. CHI reserves the right to issue a fresh RFP for Call Centre Services at any time during the validity of the Contract period with the selected Bidder.
Annexure-1 for Pre-Qualifications (Stage-1)
Forms for Bid Submission
Cover Letter

[On the letterhead of the organization]

To,
Project Director
Centre for Health Informatics,
National Institute of Health and Family Welfare,
Ministry of Health & Family Welfare, Govt. of India,
Baba Gang Nath Marg, Munirka,
New Delhi – 110067.

Sub: Prequalification-cum-Technical Bid for Appointment of Helpdesk Service Provider (SUCCESSFUL BIDDER)

Dear Sir,

Having examined the RFP, Annexures and addenda numbers _____ thereto, we, the undersigned, in conformity with the said RFP, offer to provide the said services on terms of reference to be signed upon the award of contract for the sum indicated as per financial bid.

We acknowledge having received the following addenda / pre-bid clarifications to the RFP:

<table>
<thead>
<tr>
<th>Addendum No.</th>
<th>Dated</th>
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</table>

We have read the provisions of the RFP and confirm that these are acceptable to us. We further declare that additional conditions, variations, deviations, suggestions if any, found in our bid shall not be given effect to.

We undertake, if our bid is accepted, to provide the services comprised in the RFP within time frame specified, starting from the date of receipt of notification of award from CHI.

We agree to abide by this bid for a period of 180 days from the date of bid submission and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

We agree to execute a contract in the form to be communicated by CHI, incorporating all terms and conditions with such alterations or additions thereto as may be necessary to adapt such contract to the circumstances of the standard and notice of the award within time prescribed after notification of the acceptance of this bid.

We agree that if any day during the entire project duration, our act breaches the contract terms and conditions or we express our inability to execute the project, CHI reserves all the rights to terminate the contract and appropriate penalty will be borne on us.

We hereby confirm that we do not have any conflict of interest in accordance with Clause 11.
Unless and until a formal contract is prepared and executed, this bid together with your written acceptance thereof shall constitute a binding agreement.

As security for the due performance of the undertaking and obligation of the bid we submit herewith a Bank guarantee bearing number ____________ dated ___________ drawn in favour of “Director, National Institute of Health & Family Welfare, New Delhi” for an amount of Rs.___________ payable at Delhi

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<thead>
<tr>
<th>Particulars</th>
<th>Primary Contact</th>
<th>Secondary Contact</th>
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<tbody>
<tr>
<td>Name</td>
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<tr>
<td>Title</td>
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<td>Company</td>
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<tr>
<td>Fax</td>
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</table>

We understand that if the details given in support of claims made above are found to be untenable or unverifiable, or both, our bid may be rejected without any reference to us. We also understand that if there is any change in our prequalification criteria status till the date of award of contract to the SUCCESSFUL BIDDER, it is our responsibility to inform CHI of the changed status at the earliest.

We further clearly understand that CHI is not obliged to inform us of the reasons of rejection of our bid.

Dated this _____ day of ____________________ 2017

Signature

(Bidder Seal)

__________________

In the capacity of

__________________

Duly authorized to sign bids for and on behalf of:
Form – 1: Undertaking

Bidder should provide an undertaking in the format given below on the letterhead of the bidder’s organization.

[On the letterhead of the organization]

It is certified that the information furnished here in and as per the bid / documents / clarifications submitted is true and correct and nothing has been concealed or tampered with. We have gone through all the conditions of RFP and are liable to any punitive action for furnishing false information / documents.

We have read the provisions of the RFP, Annexure thereto and addenda. We understand that any additional conditions, deviations, suggestions, assumptions, if any, found in our bid shall not be given effect to and shall not be binding on CHI in case our bid is accepted.

We understand that any component or service required for completion of the project will be made available by us without any additional financial implication, except those explicitly mentioned in the RFP, to the CHI.

Dated this _____ day of ____________________ 2017

Signature

(Bidder Seal)

__________________

In the capacity of

Duly authorized to sign bids for and on behalf of:
Form – 2: Format of power-of-attorney for signing of bid

POWER OF ATTORNEY

(On Stamp Paper of relevant value)

Know all men by these presents, we (name of the company and address of the registered office) do hereby appoint and authorize Mr / Ms(full name and residential address) who is presently employed with us and holding the position of   as our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our bid document for System Integrator for “DEVELOPMENT & IMPLEMENTATION OF INTEGRATED HEALTH INFORMATION PLATFORM (IHIP)” for CHI’, in response to the tenders invited by Ministry of Health and Family Welfare (referred to as CHI), including signing and submission of all documents and providing information / responses to CHI in all matters in connection with our bid.

We hereby agree to ratify all acts, deeds and things lawfully done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall and shall always be deemed to have been done by us.

Dated this _____ day of ____________________ 2016

For ________________________________

(Signature)

(Name, Designation and Address) Accepted

(Signature)

(Name, Title and Address of the Attorney)

Date:

Note:
The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executants and when it is so required the same should be under common seal affixed in accordance with the required procedure. In addition, wherever required, the bidder should submit for verification the extract of the charter documents and documents such as a resolution / power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the bidder.

In case the bid is signed by an authorized Director / Partner or Proprietor of the bidder, a certified copy of the appropriate resolution / document conveying such authority may be enclosed in lieu of the Power of Attorney.
Form – 3: Format for Bank Guarantee for EMD and PBG

Whereas ________________________________________(hereinafter called "the bidder") has submitted its bid offer dated ________ 2017 for “DEVELOPMENT & IMPLEMENTATION OF INTEGRATED HEALTH INFORMATION PLATFORM (IHIP)” for CHI” for Request for Proposal (RFP)’ (hereinafter called "the bid") presents that WE _{Bank name}_ having head office at _{head office Address}_(hereinafter called “the Bank”) are bound upto _{date till bid validity}_ to Ministry of Health & Family Welfare (hereinafter called "CHI" in the sum of Rs ----for which payment will and truly to be made to the CHI the Bank binds itself, its successors and assigns by these presents. Sealed with the common seal of the said Bank this ________ day of ________2017.

THE CONDITIONS of this obligation are:

If the bidder withdraws its bid during the period of bid validity specified by the bidder on the bid; or if the bidder, having been notified of the acceptance of its bid by CHI during the period of bid validity: fails or refuses to execute the contract if required; or fails or refuses to furnish the Performance Bank Guarantee, in accordance with the instruction given in Request for Proposal; we undertake to pay the CHI up to the above amount upon receipt of its first written demand, without the CHI having to substantiate its demand, provided that in its demand the CHI will note that the amount claimed by it is due it owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions. This guarantee will remain in force up to and including and any demand in respect thereof should reach the Bank not later than the above date.

Date:

Place:

(Signature/ seal of the Bank)
We hereby certify that total annual turnover and average turnover of M/s ___________________(name of the bidder) for the last three years is as given below:

|-------------------|------------------|------------------|---------|

We also certify that the total annual and average turnover of M/s ___________________(name of the bidder) for the last three years from .............. (please indicate services as per section 4.1 (Stage-1), PQ, Sr.no. 1 or 2 whichever is applicable) is as given below:

|-------------------|------------------|------------------|---------|

(Signature of Statutory Auditor/ca)
Name of Statutory Auditor/ca:
Name of Statutory Auditor/ca Firm:
Seal
Form-5 Project Experience

<table>
<thead>
<tr>
<th>Project Experience</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>General Information</td>
<td></td>
</tr>
<tr>
<td>Name of the project</td>
<td></td>
</tr>
<tr>
<td>Client for which the project was executed</td>
<td></td>
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<tr>
<td>Name and contact details of the client</td>
<td></td>
</tr>
<tr>
<td>Current Status</td>
<td></td>
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</tbody>
</table>

**Project Details**

| Description of the project |  |
| Geographical Scope |  |
| Outcomes of the Project |  |
| Applications |  |
| Technologies Used |  |
| Infrastructure |  |
| Operations and Services |  |
| Number of Locations / Sites |  |
| Number of EHR Systems Integrated |  |
| Number of beneficiaries whose records are maintained |  |
| Number of System Users |  |
| Transactions load (Records exchanged per Hour) |  |
| Solution Architecture, Deployment Architecture |  |
| Business Continuity Plan including DR |  |
| Concurrency of solution (number of concurrent users) |  |
| Availability of Solution during Peak Hours and Non-peak hours |  |
| Cloud enablement details – types of cloud, exchange amongst cloud platform, virtualization |  |
| Type of OS |  |
| Database details |  |
| Data Analytics details & Cognitive Solution details |  |
| Standards followed |  |
| Cyber Security features/details |  |

**Other Details**

| Duration of Implementation (post selection) |  |
| Total Duration of the project (no. of months, start date, completion date) |  |
| Total cost of the project |  |
| Total cost of the services provided by the Proponent |  |
| Other Relevant Information |  |

**Mandatory Supporting Documents:**

1. Work Orders / Client Certificate (including the cost details of the project excluding hardware components) confirming year and domain of activity should be attached. Supporting documents for cost of project undertaken to be provided. In case of foreign currency projects, the project value should be shown in INR as per the conversion rate prevailing at the time of award of the work order.

2. The Company(s) / Lead Proponent should produce the “satisfactory completion of works certificate” from the clients in reference to the works they have cited.

3. Complete details of the scope of the project should be provided to indicate the relevance to the prequalification criterion (which is part of minimum qualification criteria).
Form – 6: Certificate of Incorporation (Each member in case of Consortium)

<table>
<thead>
<tr>
<th>Bidder Name:</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Incorporated as _______________ in year _________ at ______________.</td>
<td></td>
</tr>
<tr>
<td>Registration Number</td>
<td></td>
</tr>
</tbody>
</table>

**Supporting Documents:** Please provide copy of Certificate of Incorporation.

Form – 7: Format for Statutory Auditor’s Certificate for Furnishing Net worth Details (Each member in case of Consortium)

<<On Statutory Auditor Letter Head>>

We hereby certify that Positive Net Worth of M/s _________________ (name of the bidder) as on 31st March, 2016 is positive and is as given below: Net worth as on 31st March, 2016 in Indian Rupees (in Crores)

<table>
<thead>
<tr>
<th>Particular</th>
<th>Net worth as on 31st March, 2016 in Indian Rupees (in Crores)</th>
<th>As on 31st March, 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paid Up Share Capital</td>
<td></td>
<td></td>
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<tr>
<td>Free Reserve</td>
<td></td>
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<tr>
<td>Total</td>
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</tbody>
</table>

(Signature of Statutory Auditor)
Name of Statutory Auditor:
Name of Statutory Auditor Firm:
Seal

Form – 8: No Blacklisting Certificate (Each member in case of Consortium)

[On the letterhead of the organization]

**No Blacklisting Certificate**

This is to certify that ___________________ (name of the organization), having registered office at ______

_______ (address of the registered office), as on date of submission of the bid, the bidder has not been blacklisted by any Government entity in India.

Signature:
Name of the Authorized Signatory:
Designation:
Form -9: Undertaking for Data and Information Security

(On the Letterhead of the bidder)
Strictly Private and Confidential
To,
Project Director
Centre for Health Informatics
National Institute of Health and Family Welfare
Ministry of Health & Family Welfare, Govt. of India
Baba Gang Nath Marg, Munirka
New Delhi – 110067

Dear Sir,

Sub: (to be mentioned by the bidder)

We acknowledge that during the course of Bid evaluation and subsequent signing of contract with the successful bidder against Request for Proposal (RFP) floated for DEVELOPMENT & IMPLEMENTATION OF INTEGRATED HEALTH INFORMATION PLATFORM (IHIP) to CHI, we shall have access to and be entrusted with Confidential Information. In this letter, the phrase "Confidential Information" shall mean information (whether of a commercial, technical, scientific, operational, administrative, financial, marketing, business, physical data, digital data or intellectual property nature or otherwise), whether oral or written, relating to CHI and its business that is provided to us pursuant to this undertaking.

In consideration of you making Confidential Information available to us, we agree to the terms set out below:

We shall treat all Confidential Information as strictly private and confidential and take all steps necessary (including but not limited to those required by this undertaking) to preserve such confidentiality.

We shall use the Confidential Information solely for the preparation of our response to the RFP and subsequently showcasing our capabilities to the evaluation committee and not for any other purpose.

We shall not disclose any Confidential Information to any other person or firm, other than as permitted by CHI.

We shall not disclose or divulge any of the Confidential Information to any other client of [name of product vendor / implementation partner].

This undertaking shall not prohibit disclosure of Confidential Information:

To our partners/directors and employees who need to know such Confidential Information to assist with the bidding for RFP floated for IHIP:

To the extent that such disclosure is required by law;

To the extent that such disclosure is required by any rule or requirement of any regulatory authority with which we are bound to comply; and
To our professional advisers for the purposes of our seeking advice. Such professional advisors will be informed of the need to keep the information confidential.

Upon your request we shall arrange delivery to you of all Confidential Information, and copies thereof, that is in documentary or other tangible form, except:

To the extent that we reasonably require to retain sufficient documentation that is necessary to support any advice, reports, or opinions that we may provide.

This undertaking shall not apply to Confidential Information that:

Is in the public domain at the time it is acquired by us;

Enters the public domain after that, otherwise than as a result of unauthorized disclosure by us;

Is already in our possession prior to its disclosure to us; and is independently developed by us.

This undertaking shall continue perpetually unless and to the extent that you may release it in writing.

We warrant that we are acting as principal in this matter and not as agent or broker for any person, company, or firm.

We acknowledge that no failure or delay by you in exercising any right, power or privilege under this undertaking shall operate as a waiver thereof nor shall any single or partial exercise thereof or the exercise of any other right, power, or privilege.

This undertaking shall be governed by and construed in accordance with Indian law and any dispute arising from it shall be subject to the exclusive jurisdiction of the Delhi courts.

Yours sincerely

______________________________
Name of Authorized Representative:

______________________________
Signature of Authorized Representative:

______________________________
Verified above signature Place:
Date:  Seal and signature of the bidder
Form 10: Manufacturers'/Producers' Authorization Form

(This form has to be provided by the OEMs of the products proposed)
No. Date:
To:
OEM Authorization Letter
Dear Sir:
Ref: [Your RFP Ref: [*] dated [*]]

We who are established and reputable manufacturers / producers of __________________________ having factories / development facilities at (address of factory / facility) do hereby authorize M/s ___________________ (Name and address of Agent) to submit a Bid, and sign the contract with you against the above Bid Invitation.

We hereby extend our full guarantee and warranty for the Solution, Products and services offered by the above firm against this Bid Invitation.

We also undertake to provide any or all of the following materials, notifications, and information pertaining to the Products manufactured or distributed by the Successful Bidder:

1. Such Products as the Bank may opt to purchase from the Successful Bidder, provided, that this option shall not relieve the Successful Bidder of any warranty obligations under the Contract; and

2. in the event of termination of production of such Products:
   I. advance notification to the Bank of the pending termination, in sufficient time to permit the Bank to procure needed requirements; and
   II. Following such termination, furnishing at no cost to the Bank, the blueprints, design documents, operations manuals, standards, source codes and specifications of the Products, if requested.

We duly authorize the said firm to act on our behalf in fulfilling all installations, Technical support and maintenance obligations required by the contract.

Yours faithfully,

(Name)
(Name of Producers)

Note: This letter of authority should be on the letterhead of the manufacturer and should be signed by a person competent and having the power of attorney to bind the manufacturer. The Bidder in its Bid should include it.
## Checklist Prequalification Criteria (Stage-1)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Prequalification Criteria</th>
<th>Proof Submitted</th>
<th>Check List</th>
<th>Page no</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><strong>Overall Turnover</strong></td>
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<tr>
<td></td>
<td>Average annual turnover of the Company/Lead Proponent of consortium during the last three Financial years 2013-14, 2014-15, 2015-16 from design, development and deployment of software services should be at least INR 30 crore.</td>
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<tr>
<td>2.</td>
<td><strong>Overall Turnover in Case of Consortium</strong></td>
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<td></td>
<td>In case of consortium, average annual turnover of lead bidder should be as per Sr.no-1 and each member of the consortium during the last three financial years 2013-14, 2014-15, 2015-16 (as per the published Income Statement) should have an average turnover of 5 crore in Software design, development and deployment Services</td>
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<tr>
<td>3.</td>
<td><strong>Turnover from HIE Implementation</strong></td>
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<td></td>
<td>In case of Sole bidder, the bidder should also have a minimum INR 10 crore turnover from Health Information Exchange business (Only Software Components) in the last five financial years ending 31st March 2016 (as per the published Income Statement).</td>
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<tr>
<td></td>
<td>In case of Consortium, at least one consortium member should have INR 10 Crore turnover in the last 5 financial years ending 31st March 2016(in Health Information Exchange business (Only Software Components).</td>
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<tr>
<td>4.</td>
<td><strong>HIE Experience</strong></td>
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<td>The Proponent (Company/Consortium) must have a proven capability in design, development, integration, implementation, operations and maintenance of “Live” HIE systems across large hospitals or networks of Hospitals / healthcare facilities. HIE Project means data exchange between different types of EHRs/HIS</td>
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</table>
connecting various hospitals which comprises of registry services, data services, clinical data repository, citizen/provider health portal etc. Exchange of data/records only within a network/chain/group of associated hospitals/ healthcare service providers will be considered only in case of exchange of disparate/different EHRs/HIS.

5. The Company/Consortium members taken together must have executed projects of total value (excluding hardware) in design, development, integration, implementation, operations and maintenance of HIE or other eHealth Solutions (i.e. HIS, EMR, EHR, HMIS) in last seven years (ending 31st March 2016) as mentioned below:-

   4. One similar completed work costing not less than 20 Crores.

   or

   5. Two similar completed work costing not less than 15 Crore each.

   or

   6. Three similar completed work costing not less than 10 Crore each.

6. The Company / Lead Proponent (in case of consortium) should be an entity registered in India under the Company Act, 1956 (or) a firm registered under the Limited Liability Partnership Act, 2008 (or) a firm registered in India under the Partnership Act, 1932 for last 5 years as on 31st March, 2016, and must have a registered office in India which should be in operation as on 31st March, 2016.

   In case of consortium, non-lead members should be registered entity (in/outside India).

7. Bidder (each member in case of consortium) should have a positive Net Worth as on 31st March 2016 or at the closing of the previous financial year.
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>8.</strong></td>
<td><strong>The Company / Consortium Members</strong> should have a valid Service Tax Registration and Income Tax returns and PAN card.</td>
</tr>
<tr>
<td><strong>9.</strong></td>
<td>As on date of submission of the bid, the bidder should not be blacklisted by any Government entity in India (in case of consortium, none of the members should be blacklisted by any Government entity in India)</td>
</tr>
<tr>
<td><strong>10.</strong></td>
<td>Lead Bidder should be a CMMI Level 3 Certified</td>
</tr>
<tr>
<td><strong>11.</strong></td>
<td>Bidder should provide an undertaking for providing adequate data and information security.</td>
</tr>
<tr>
<td><strong>12.</strong></td>
<td>Letter of authorization from OEM</td>
</tr>
</tbody>
</table>
### Checklist of Forms as per Annexure-1 (Stage-1)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Type of Form</th>
<th>Check List (Yes/No)</th>
<th>Page Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cover Letter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Form – 1: Undertaking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Form – 2: Format of power-of-attorney for signing of bid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Form – 3: Format for Bank Guarantee for EMD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Form – 4: Annual Turnover (Each member in case of Consortium)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Form-5: Project Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Form – 6: Certificate of Incorporation (Each member in case of Consortium)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Form – 7: Format for Statutory Auditor’s Certificate for Furnishing Net worth Details (Each member in case of Consortium)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Form – 8: No Blacklisting Certificate (Each member in case of Consortium)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Form - 9: Undertaking for Data and Information Security</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Consortium Agreement (in case of Consortium)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>CMMI Level 3 Certificate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>MAF (If applicable)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Any other Information (Please Specify)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Annexure-2 for Technical bid (Stage-2)
## Form-1 Project Experience

<table>
<thead>
<tr>
<th>Project Experience</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>General Information</td>
<td></td>
</tr>
<tr>
<td>Name of the project</td>
<td></td>
</tr>
<tr>
<td>Client for which the project was executed</td>
<td></td>
</tr>
<tr>
<td>Name and contact details of the client</td>
<td></td>
</tr>
<tr>
<td>Current Status</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Details</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Description of the project</td>
<td></td>
</tr>
<tr>
<td>Geographical Scope</td>
<td></td>
</tr>
<tr>
<td>Outcomes of the Project</td>
<td></td>
</tr>
<tr>
<td>Applications</td>
<td></td>
</tr>
<tr>
<td>Technologies Used</td>
<td></td>
</tr>
<tr>
<td>Infrastructure</td>
<td></td>
</tr>
<tr>
<td>Operations and Services</td>
<td></td>
</tr>
<tr>
<td>Number of Locations / Sites</td>
<td></td>
</tr>
<tr>
<td>Number of EHR Systems Integrated</td>
<td></td>
</tr>
<tr>
<td>Number of beneficiaries whose records are maintained</td>
<td></td>
</tr>
<tr>
<td>Number of System Users</td>
<td></td>
</tr>
<tr>
<td>Transactions load (Records exchanged per Hour)</td>
<td></td>
</tr>
<tr>
<td>Solution Architecture, Deployment Architecture</td>
<td></td>
</tr>
<tr>
<td>Business Continuity Plan including DR</td>
<td></td>
</tr>
<tr>
<td>Concurrency of solution (number of concurrent users)</td>
<td></td>
</tr>
<tr>
<td>Availability of Solution during Peak Hours and Non-peak hours</td>
<td></td>
</tr>
<tr>
<td>Cloud enablement details – types of cloud, exchange amongst cloud platform, virtualization</td>
<td></td>
</tr>
<tr>
<td>Type of OS</td>
<td></td>
</tr>
<tr>
<td>Database details</td>
<td></td>
</tr>
<tr>
<td>Data Analytics details &amp; Cognitive Solution details</td>
<td></td>
</tr>
<tr>
<td>Standards followed</td>
<td></td>
</tr>
<tr>
<td>Cyber Security features/details</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Details</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration of Implementation (post selection)</td>
<td></td>
</tr>
<tr>
<td>Total Duration of the project (no. of months, start date, completion date)</td>
<td></td>
</tr>
<tr>
<td>Total cost of the project</td>
<td></td>
</tr>
<tr>
<td>Total cost of the services provided by the Proponent</td>
<td></td>
</tr>
</tbody>
</table>

Mandatory Supporting Documents:

4. Work Orders / Client Certificate (including the cost details of the project excluding hardware components) confirming year and domain of activity should be attached. Supporting documents for cost of project undertaken to be provided. In case of foreign currency projects, the project value should be shown in INR as per the conversion rate prevailing at the time of award of the work order.

5. The Company(s) / Lead Proponent should produce the “satisfactory completion of works certificate” from the clients in reference to the works they have cited.

6. Complete details of the scope of the project should be provided to indicate the relevance to the prequalification criterion (which is part of minimum qualification criteria).
Form – 2: Proposed Team Profile

(The personnel proposed to be deployed shall be professionally qualified from reputed universities/institutions having adequate experience in implementing integrated system preferably in Health care.)

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name</th>
<th>Designation</th>
<th>Qualification</th>
<th>Prof. Exp. in Yrs</th>
<th>Relevant Industry Exp. (Name of Clients and project)</th>
<th>Proposed Position</th>
<th>Task Proposed to be assigned</th>
<th>Duration of Team member (in Months)</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

Note:-

a) Personnel deployed having prior experience in Implementation in Health care sector especially HIE will carry more weight.

b) Provide details of at least two most relevant project experiences (including roles and responsibilities) having scope similar to us.

c) Enclose detail resumes of the personnel as per Annexure -2 Form - 4.

Name and Designation of Signatory: Seal & Signature of Authorized Person

Name of Firm:
Address
Form – 3: Roles and Responsibilities

Intentionally left blank
Form-4 CV of the Team Members
(Refer Clause 4 in Section IV — Conditions of Contract)
(Use separate sheets for each Team Member)

<table>
<thead>
<tr>
<th>Company Name</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td></td>
</tr>
<tr>
<td>Proposed Deployment Role of the Candidate</td>
<td></td>
</tr>
<tr>
<td>Expertise / Training on</td>
<td></td>
</tr>
<tr>
<td>Professional Qualifications</td>
<td></td>
</tr>
<tr>
<td>Number of Years with present Employer</td>
<td></td>
</tr>
<tr>
<td>Skills</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Company/Project/Position/Relevant Technical and Management Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
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</tr>
</tbody>
</table>

Certification by the Authorized Signatory -
I, the undersigned, certify that to the best of my knowledge and belief, this resume reflects correct information and that the willful misstatement described herein may lead to disqualification or dismissal of the above candidate.

Name and Designation of Signatory: Seal & Signature of Authorized Person
Name of Firm:
Address
<table>
<thead>
<tr>
<th>S. No.</th>
<th>Type of Form</th>
<th>Check List (Yes/No)</th>
<th>Page Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Form-1: Project Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Form-2 Proposed Team Profiles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Form-3 Roles and Responsibilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Form – 4: CV of the team members</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Detailed Solution of IHIP including project plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Any other Information (Please Specify)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Annexure-3 Compute Requirements

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Compute Configuration (Core and Clock speed and cache)</th>
<th>Quantity</th>
<th>Year wise requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Year-1</td>
</tr>
<tr>
<td>1</td>
<td>Physical Server</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Total RAM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Virtualization (if proposed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Storage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Bandwidth Capacity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>OS type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Database</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Antivirus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Host Intrusion Prevention System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Any other Security (Please Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Any other component (Please Specify)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Annexure-4 Price Schedule

Instructions

1. Bidder must provide all prices as per the prescribed format. Bidder should not leave any field blank. In case the field is not applicable, Bidder must indicate “0” (Zero) in all such fields.
2. Bidder must refer to the RFP for details on the requirements for each cost component and ensure that quoted price is all inclusive. CHI will not pay any additional amount for any missing item(s) which is deemed to be necessary for the successful roll out of the project.
3. Prices must be entered in Indian Rupees Only.
4. All costs should be inclusive of all applicable taxes.
5. Price bid evaluation will be done on the total cost.
6. CHI reserves the right to increase or decrease the work or give part order as mentioned in price schedule.
7. The bidder will ensure that the quoted prices for all software and hardware components will be valid for the entire period of the contract and without any additional operational and maintenance charges for the same.
8. The rates prescribed for any of the items mentioned will be valid for additional procurement of those items during the contract period, if CHI feels the need for additional items to be procured.
9. CHI at its discretion may increase or decrease the manpower required in the project and this is applicable for entire duration of the project.
10. No counter condition/assumption in response to commercial bid will be accepted. CHI has a right to reject such bid.
11. The Successful Bidder will absorb the Impact of foreign exchange fluctuation, if any.

Table A: Total Cost

<table>
<thead>
<tr>
<th>S.no.</th>
<th>Item</th>
<th>Table Name</th>
<th>Total cost (With Taxes) in INR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Software Development Charges (Web portal Charges, HIE, Integration, services, Licenses etc.)</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Training &amp; Capacity Building Charges</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Total cost (Implementation Phase) (1+2)</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Operation and Maintenance Services for a period of four years from the date of Go-Live</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Total Cost(In Figures) (3+4):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Total Cost (In Words) (3+4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S.no.</td>
<td>Item</td>
<td>Cost (Without Tax) in INR</td>
<td>Tax %</td>
</tr>
<tr>
<td>------</td>
<td>----------------------------------------------------------------------</td>
<td>---------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>1</td>
<td>Design, Development and Technical Support of Registry Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Design, Development and Technical Support of EHR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Design, Development and Technical Support of HIE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Design, Development and Technical Support of Master Patient Index</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Design, Development and Technical Support of Portal</td>
<td></td>
<td></td>
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<tr>
<td>6</td>
<td>Design, Development and Technical Support of Consent Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Customization Charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Integration Charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Implementation Charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Software Licenses cost if any</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Security Audit Charges</td>
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<td>12</td>
<td>Performance Audit Charges</td>
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<td></td>
</tr>
<tr>
<td>13</td>
<td>Manpower Services in implementation phase (Table-D)</td>
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<td></td>
</tr>
<tr>
<td>14</td>
<td>Any other components (Please Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Any other components (Please Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td><strong>Total Cost :</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Cost in words:**
## Table C: Operation and Maintenance Charges

Operations and Maintenance Charges (Quarterly Expenses for 4 years of contract after “Go-Live”)

<table>
<thead>
<tr>
<th>S.No</th>
<th>Operation Support</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>First (a)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Second (b)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Third (c)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fourth (d)</td>
</tr>
<tr>
<td>1</td>
<td>Application Maintenance &amp; Operational Expense including upgradation, deployment of patches, fixes, hosting services etc.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Support and Subscription Cost for Software and Licenses</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Manpower Services in Operation Phase (Table E)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Tax</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Sub-Total</td>
<td></td>
</tr>
</tbody>
</table>

**Total Support cost for four years (a+b+c+d):**

The Bidder are requested to take into account the Scope of Work and SLA while quoting for Support and Subscription

**Note:**

- This Operational Support per year shall be for all the components / items / infrastructure under this RFP / Contract including the Support personnel deployed during the operation and maintenance for the project.
- Bidder should bifurcate the types of taxes in case of more than one type of taxes are applicable.
## Manpower Support Services

### Table D: Implementation Phase

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Designation</th>
<th>Qualification</th>
<th>Prof. Exp. in Yrs</th>
<th>Proposed Position</th>
<th>Duration of Team member (in Months)</th>
<th>Man Month Cost (Without Tax) INR</th>
<th>Tax%</th>
<th>Total Cost (With Tax) INR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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</table>

Total Cost (In Figures)

Total Cost (In Words)

### Table E: Operation Phase (for 4 years)

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Designation</th>
<th>Qualification</th>
<th>Prof. Exp. in Yrs</th>
<th>Proposed Position</th>
<th>Man Month Cost (Without Tax) INR</th>
<th>Tax%</th>
<th>Total Cost (With Tax) INR</th>
<th>Cost for 1st year</th>
<th>Cost for 2nd year</th>
<th>Cost for 3rd year</th>
<th>Cost for 4th year</th>
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<tbody>
<tr>
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</tbody>
</table>

Total Cost (In Figures)

Total Cost (In Words)