Tender Reference No. :   IT-TD-202301

20 September 2023

CUHK MEDICAL CENTRE LIMITED
INVITATION TO TENDER
Provision of Implementation Services for the Hospital Information System (HIS) and Integrations (Phase 4)
(Tender No.: IT-TD-202301)

CUHK Medical Centre Limited (CUHKMC) intends to invite Tenderer to submit a proposal for Provision of Implementation Services for the Hospital Information System (HIS) and Integrations (Phase 4) for CUHK Medical Centre.

If your company is interested, please submit a full proposal with all required submissions mentioned in this Invitation to Tender by **12:00 noon on 1 November 2023 (HK Time).**

Late submissions or incomplete proposals will not be considered. Please note that this Invitation to Tender is non-committal on our part and your proposal would be provided to CUHK Medical Centre Limited at no cost.

Yours faithfully,

Cindy LEUNG
Senior Manager, Supplies & Procurement
CUHK Medical Centre Limited

Enclosure

CUHK Medical Centre Limited

Invitation to Tender

on

Provision of Implementation Services for the Hospital Information System (HIS) and Integrations (Phase 4)

Tender Reference: IT-TD-202301

Tender Issue Date: 20 September 2023

Tender Closing Date and Time: 12:00 noon on 1 November 2023 (HK Time)

Part	Titles
I	Interpretation
II	Terms of Tender
III	Conditions of Contract
IV	Offer To Be Bound
V	Tenderee's Brief
VI	Tender Brief
VII	Schedules of Submissions
VIII	Appendix(ices)

PART I

INTERPRETATION

In this Invitation to Tender, the following words and expressions shall have the following meanings unless otherwise stated:

"Contract"	means the contract made between CUHKMC and the Successful Tenderer for the provision of Services;
"Successful Tenderer"	means the Tenderer whose Tender is accepted by CUHKMC;
"Services"	means the Services to be provided by the Successful Tenderer under the Contract;
"CUHKMC"	means CUHK Medical Centre Limited;
"CUHKMC Representative"	means the person acting for and on behalf of CUHKMC or any duly authorized officer of CUHKMC performing his/her duties from time to time;
"Schedule"	means any schedule under the Schedule of Submissions, and "Schedules" shall be construed accordingly;
"Tender"	means the Tender submitted by the Tenderers for the provision of Services;
"Tenderer" or "Company"	means the person, firm or company whose details are set out in the relevant Schedule.

PART II
TERMS OF TENDER

1 Invitation to Tender

1.1 Tenderers are invited for the provision of Services subject to and in accordance with the tender requirements/specifications set out in the Tender Brief (collectively, "Requirements"), the Terms of Tender and the Conditions of Contract (this "Invitation to Tender").

1.2 CUHKMC reserves the right in its absolute discretion to cancel this Invitation to Tender at any time before acceptance of any Tender.

1.3 CUHKMC will not be responsible for or liable to any Tenderer for any cost or expense incurred in relation to (i) the preparation or submission of the Tender; or (ii) any communication between the Tenderer and CUHKMC in relation to the Tender, under any circumstances (including the cancellation of this Invitation to Tender by CUHKMC).

1.4 The Tenderer acknowledges and agrees that CUHKMC is not responsible for the accuracy of any information provided in this Tender document, and the Tenderer has made its own independent evaluation of the business potential of the Tender Brief and it has submitted its Tender submission based solely on the result of such independent evaluation.

1.5 The Tenderers are required to fill in the information indicated in "Offer To Be Bound" (Part IV).

2 Tender

2.1 This Invitation to Tender relates to the provision of all (or any part) of the Services whose details and specifications are set out in the Tender Brief.

2.2 Tenderer must note that its offers in their tender submission must comply with the Requirements in every respect. Tender submission which does not comply with such requirements shall not be considered.

2.3 The Tender documents are to be completed in English (except where certain Supporting Documents are expressly required to be in Chinese) and in permanent ink or typescript and submitted in the manner stipulated. Tenderer is required to stamp and initial next to any corrections made.

2.4 All parts of this Invitation to Tender, including without limitation, the Schedules, Offer to be Bound, Terms of Tender, Conditions of Contract, and the Tender Brief must not be altered by the Tenderer. If the Tenderer wishes to make any change to any part of this Invitation to Tender, the Tenderer must also submit a copy of that part with the proposed amendments, additions and/or deletions in a marked-up manuscript. All such manuscript changes should be made and initialled by the Tenderer in permanent ink for CUHKMC's consideration. Otherwise, the Tender submission may not be considered.

2.5 Tender are to be completed in permanent ink or typescript; Tender not so completed may not be considered.

2.6   Tender may not be considered if complete information is not given with the Tender or if any particulars or data asked for in the Schedules are not furnished in full. Where appropriate, descriptive and technical literature should be submitted with the Tender. The CUHKMC Representative may request clarification of particulars and data supplied, or additional particulars and data, and if so the Tenderer shall have 5 working days or such further period as the CUHKMC Representative may specify to submit such further information. Failure to do so within the time period shall result in the Tender being considered incomplete.

2.7   The CUHKMC Representative is not bound to accept the lowest or any Tender and reserves the right to accept all or any part of any Tender at any time within the Tender Validity Period.

3   Tender Validity Period

Tender shall, unless otherwise indicated by the Tenderer, remain open for **one-hundred-and-twenty (120) days** after the Tender Closing Date ("Tender Validity Period") and the Tenderer agree not to withdraw the offer constituted by such Tender for this period.

4   Tender Prices

4.1   The prices to be quoted by the Tenderer are to be in Hong Kong currency and must only be shown on the relevant Schedule. Such prices shall be net prices allowing for all trade and cash discounts and inclusive of all costs and expenses to be incurred by the Tenderer in the performance of the Contract. Prices must remain valid for the duration of the Contract and for the provision of all of the Services.

4.2   Prices quoted in other currencies will be considered and if accepted, payment will be made in the quoted currency. All bank charges incurred by the Successful Tenderer will be borne by the Successful Tenderer.

4.3   For price comparison purposes, any prompt payment discount offered by the Tenderers will not be taken into consideration in assessment of Tender Prices.

4.4   Tenderers are reminded to ensure the accuracy of their Tender prices quoted in the Price Proposal. Under no circumstance will CUHKMC accept any request for price adjustment on grounds that a mistake has been made in the Tender prices quoted by a Tenderer.

4.5   CUHKMC reserves the right to negotiate with any Tenderer on the terms of the offer.

5   Acceptance and Award of Contract

The Successful Tenderer will receive a letter of acceptance from CUHKMC as an indication of acceptance of the offer submitted by the Tenderer. The letter of acceptance, together with the Requirements, the Terms of Tender and the Conditions of Contract set forth herein, the submitted proposal of the Successful Tenderer (or parts thereof as accepted by CUHKMC), the Offer to be Bound signed by the Successful Tenderer, and all other negotiated terms (if any) as agreed between CUHKMC and the Successful Tenderer shall constitute a binding contract between CUHKMC and the Successful Tenderer. Tenderer who do not receive any notification within one-hundred-and-twenty (120) days from the Tender Closing Date may assume that its Tender has not been accepted.

6   Presentation

Tenderer may be invited to provide a brief presentation.

7   Product/ Service Information

Tenderer shall submit with the Tender a sufficient and valid product/service information, e.g. catalogues, technical specifications, brochures, etc. Additional copies may be requested by CUHKMC to facilitate easy reference and ordering.

8   New Information Relevant to Qualified Status

Tenderer shall inform CUHKMC immediately in writing of any circumstance or information which may affect its qualification to tender in this Tender. CUHKMC reserves the right to review the Tenderer's qualified status in the light of any new information relevant to its qualification.

9   Cancellation of Invitation to Tender

Without prejudice to CUHKMC's right to cancel this Invitation to Tender at any time before acceptance of any Tender, where there are changes of requirements after the Tender Closing Date, for operational or any other reasons, CUHKMC is not bound to accept any conforming Tender and reserves the right to cancel this Invitation to Tender.

10   Destruction of Tender Submissions that are unsuccessful, etc.

10.1   CUHKMC will return the unsuccessful tender submissions upon one-hundred-and-twenty (120) days of Tender closing. The unsuccessful Tenderer(s) should contact CUHKMC to collect its/their tender submissions. If any unsuccessful Tenderer fails to collect its tender submissions within ten (10) days after the one-hundred-and-twenty (120) days of Tender closing, CUHKMC will dispose of its tender documents without notifying such Tenderer.

10.2   Where this Invitation to Tender is cancelled, all tender submissions under this Invitation to Tender can be destroyed any time after such cancellation without further notice to the Tenderers.

11   Microsoft Windows Support

11.1   Tenderer has the responsibility to plan and take appropriate actions on the equipment or system to safeguard against the risks of Windows desktop Operating System obsolescence, including to upgrade the computers to a supported Windows desktop Operating System version to ensure the continued support and avoid security risks of the equipment or system provided to CUHKMC.

12   Personal Data

12.1   Personal data (as defined in the Personal Data (Privacy) Ordinance (Cap. 486 of the laws of Hong Kong) ("Personal Data") of Tenderer and/or its personnel (collectively, ("Tenderer's Personal Data") may be requested for purposes related to evaluation of offer. When Tenderer's Personal Data is provided, please make sure that the data is accurate and complete. If Tenderer fails to provide the information required or if the information provided is inaccurate or incomplete, the evaluation of the Tenderer's offer will be affected.

12.2   Tenderer's Personal Data may be made available to:

a.   The CUHKMC Representative.

b.   Any other relevant parties who require it for matters related to evaluation and (if applicable) acceptance of Tenderer's offer.

12.3   The CUHKMC Representative will only use, disclose or transfer the Tenderer's Personal Data provided:

a.   For the purposes relating to evaluation and (if applicable) acceptance of offer or directly related purposes; or

b.   Where permitted by law.

12.4   The CUHKMC Representative will obtain the Tenderer's consent before using Tenderer's Personal Data for any other purposes.

13   Commitment to Environmentally Responsible Purchasing

13.1   CUHKMC is sensitive to the environmental impact of purchasing decisions and takes account of legitimate environmental concerns while continuing to achieve best value for money in its purchasing functions.

13.2   CUHKMC identifies products/ services which present environmental concerns and addresses these concerns in the approval of the tender specifications and in the tender evaluation process.

14   Environmental Friendly Measure

The following environmental friendly measures are recommended in the preparation of the Tender documents:

14.1   All documents should preferably be printed on both sides and on recycled paper. Papers exceeding 80 gsm are not recommended.

14.2 Excessive use of plastic laminates, glossy covers or double covers should be avoided as far as possible. Use of recyclable non-glossy art board paper as document covers is recommended.

14.3 Single line spacing should be used and excessive white space around the borders and in between the paragraphs should be avoided.

15 Consent to Disclosure

CUHKMC shall have the right to disclose whenever it considers appropriate, or upon request (verbal or written) by any third party (including any unsuccessful Tenderer), information of the Contract, such as the name and address of the Successful Tenderer, product description/brand/model/country of origin (if applicable), description of the relevant services (if applicable) and the value of the Contract, without reference to or consent from the Successful Tenderer. Unsuccessful Tenderer may also enquire as to the reason for the rejection of their tender submissions.

16 Offering Gratuities

Tenderer shall not, and shall assure that its employees, agents and sub-contractors shall not, offer, solicit or accept an advantage as defined in the Prevention of Bribery Ordinance (Cap. 201 of the laws of Hong Kong) in connection with this Tender.

17 Tender Submission

17.1 The documents attached herewith should only be used for the submission of a tender in response to this invitation. The "Submission of Tender" should be completed by Tenderer with signature and company chop. The submission may be accompanied by documents containing additional explanations, amplifications or specifications, which should be stapled securely to the appropriate Schedule(s).

17.2 This Tender shall be conducted in a two–envelope bidding process. **Technical Proposal and Price Proposal should be submitted separately**.

17.3 The Tenderer shall submit the Technical Proposal and the Price Proposal under its Tender submission in two separate sealed plain envelopes, each containing one set of original, three sets of duplicate, and one soft copy in CD-ROM/USB of the relevant proposal. Both the envelope for Technical Proposal and the envelope for Price Proposal should clearly state the subject of this Tender and the tender reference number. In the event of conflict between any hardcopy version and the softcopy version, the original hardcopy version shall prevail.

17.4   Each proposal (and any accompanying document(s)), properly completed and enveloped, must be placed in the Tender Box by **12:00 noon on 1 November 2023 (HK Time)**. The Tender box is situated at the following address:

Address: CUHK Medical Centre Limited

                12/F, CUHK Medical Centre

                9 Chak Cheung Street

                Shatin, New Territories

                Hong Kong

The office hours of CUHKMC are 9:00 am to 12:30 pm and 2:30 pm to 5:00 pm, Monday to Friday (except public holidays). **Late Tender will not be considered.**

17.5   The Tender Closing Time and Tender Closing Date will be extended to 12:00 noon of the next working day in Hong Kong (i.e. any day from Monday to Friday which is not a public holiday) under the following situations:

   a.   A black rainstorm signal or tropical cyclone warning signal No. 8 or above issued by the Hong Kong Observatory is still in force between 9:00 am and 12:00 noon on the Tender Closing Date;

   b.   A black rainstorm signal or tropical cyclone warning signal No. 8 or above is announced to be hoisted shortly by the Hong Kong Observatory between 9:00 am and 12:00 noon on the Tender Closing Date; or

   c.   The post-super typhoon "extreme conditions" is announced by the Hong Kong Government between 9:00 am and 12:00 noon on the Tender Closing Date; or

   d.   The post-super typhoon "extreme conditions" as announced by the Hong Kong Government exist between 9:00 am and 12:00 noon on the Tender Closing Date.

18   Tenderer's Enquiries

18.1   All enquiries relating to the Tender must be made before **2:30 p.m. on 10 October 2023 (HK Time)** in writing by email to procurement@cuhkmc.hk.

18.2   The answers / responses to Tenderer's enquires will be posted on the website of CUHK Medical Centre (www.cuhkmc.hk) before Tender Closing Date.

PART III

CONDITIONS OF CONTRACT

1   Conditions of Supply

These conditions shall apply to the supply of the Services by the Successful Tenderer under the Contract.

2   General Requirements

2.1   The Successful Tenderer shall be responsible for providing, in accordance with the provisions of the Contract, the Services for the duration of the Term, and CUHKMC shall pay to the Successful Tenderer all sums due to the Successful Tenderer for the performance of the Services.

2.2   The Successful Tenderer shall diligently, promptly and properly provide and co-ordinate the provision of the Services to CUHKMC and comply with its duties and obligations in the Contract to the satisfaction of CUHKMC.

2.3   The Successful Tenderer shall exercise in the performance of the Services the same reasonable skill, care and diligence expected of a professional consultant who is qualified, competent and experienced in carrying out the duties and services of the nature described in the Contract for projects of a similar size, type, scope, complexity and purpose of the work at all relevant times.

2.4   The Successful Tenderer shall ensure that at all times it has, and will assign, adequate staff, tools and equipment to efficiently and properly fulfil its obligations under the Contract.

2.5   The Successful Tenderer will provide the Services in a satisfactory and skillful manner and shall meet to the satisfaction of CUHKMC any complaints and criticisms that may be made.

2.6   The Successful Tenderer shall comply with:-

   a.   all laws, rules and regulations applicable to its provision of Services; and
   b.   the most current version or edition of all codes and standards that are relevant and applicable to its provision of Services.

2.7   The Successful Tenderer shall provide all necessary assistance and all information on all matters in relation to the Services requested by CUHKMC and/or the CUHKMC Representative.

2.8   The Successful Tenderer shall obey all instructions and comply with all reasonable requests that may be put forth by CUHKMC and/or the CUHKMC Representative.

2.9   CUHKMC may issue warnings to the Successful Tenderer on all matters relating to the provision of the Services and the Successful Tenderer shall immediately take all remedial actions which may reasonably be required.

2.10   The Successful Tenderer and its staff shall not perform any duties and obligations under the Contract in such a way that may cause disturbance to patients, staff or visitors of CUHKMC or disruption to the normal routines and operations of CUHKMC.

2.11   The Successful Tenderer shall not use any materials in the provision of the Services in any way that may cause harm, discomfort or detriment to the health of the patients, staff or visitors of CUHKMC.

2.12   The Successful Tenderer acknowledges that the time, dates and period shall be of the essence with respect to the performance of the Services specified to be subject to such requirement under the Contract as well as any times, dates or periods that may by agreement between CUHKMC and the Successful Tenderer be substituted for any of them.

2.13   CUHKMC reserves the right to reject any part of the Services which does not comply with the Requirements, and the Successful Tenderer must carry out the necessary remedial work or replacement without extra charge or delay.

3   Successful Tenderer's Acknowledgement

The Successful Tenderer acknowledges it has been supplied with sufficient information to enable it to provide the Services which comply fully with the Requirements and the requirements of the Contract. The Successful Tenderer shall not be entitled to any additional payment nor be excused from any liability under the Contract as a consequence of any misinterpretation by the Successful Tenderer of any matter or fact relating to the Requirements, the said requirements or any other provisions of the Contract.

4   Acceptance

4.1   All Services delivered / deliverables shall be subject to review by CUHKMC and shall be deemed to have been accepted only when the CUHKMC Representative or any person duly authorised by him, furnishes the Successful Tenderer with an acceptance note.

4.2   The date of acceptance of the Services shall be determined by CUHKMC based upon the satisfactory completion of the Services.

4.3   The details of acceptance of the Services are annexed in Part VI - Tender Brief.

5   Delays

5.1   The Successful Tenderer shall provide the Services on or before the applicable Completion Date or service delivery date (as applicable).

5.2   If the Successful Tenderer fails to provide the Services by the applicable Completion Date or service delivery date, then the Successful Tenderer shall pay to CUHKMC as and by way of liquidated damages for any loss or damages sustained by CUHKMC.

6   Terms of Payment

6.1   Invoice and correspondence concerning payment must be forwarded to CUHKMC after service delivery. CUHKMC shall not be held responsible for any delay in payment if invoices and correspondence concerning payment are not properly addressed to CUHKMC.

a. Unless otherwise agreed by CUHKMC, no payment shall be made until the service delivery has been accepted within the meaning of clause 4 of this part.

b. The payment shall be made within 30 clear working days from the date of receipt of invoice or acceptance of the Services by CUHKMC, whichever is the later.

7 Warranties and Representations

7.1 The Successful Tenderer warrants, represents and undertakes that:

a. the Successful Tenderer, and its employees, agents and subcontractors shall have the necessary training, skill, experience, qualifications and expertise to provide the Services on the terms and conditions set out in the Contract;

b. the Successful Tenderer shall carry out the Services with all due diligence and in a timely, safe, proper, skillful and workmanlike manner;

c. the Services shall conform in all respects the service specifications and conditions under the Contract;

d. the Successful Tenderer has been duly organised and validly existing in the jurisdiction of its incorporation;

e. the Successful Tenderer has the full power, capacity, authority to enter into the Contract and to perform its obligations hereunder;

f. all authorisations, approvals, consents, licences, exemptions and other requirements of any government authorities or body in any relevant jurisdiction which are required to authorise the Successful Tenderer and its employees, agents and subcontractors to execute, deliver and perform the Successful Tenderer's obligations under the Contract have been duly and unconditionally obtained and are in full force and effect during the term of the Contract;

g. all information supplied, statements and representations made by or on behalf of the Successful Tenderer are true, accurate and complete;

h. it owns, has obtained and is able to obtain, valid licences for all intellectual property rights that are necessary for the performance of its obligations under the Contract; and

i. the Successful Tenderer or its employees, agents and subcontractors are not bound by or subject to any court order, agreement, or undertaking which will or might have a material adverse effect on the Successful Tenderer's ability to perform its obligations under the Contract,

(collectively, the "Warranties", and each a "Warranty").

7.2 Each of the Warranties shall be separate and independent and without prejudice to any other Warranty, and shall not be limited by reference to or inference from any other Warranty or any other provision of the Contract.

7.3 Unless otherwise expressly excluded from or provided to the contrary in the Contract, the rights, duties and liabilities imposed on a service provider and the rights conferred on the party contracting the service provider under the Supply of Services (Implied Terms) Ordinance (Chapter 457 of the Laws of Hong Kong) apply to bind the Successful Tenderer and CUHKMC.

8 Liability and Indemnities

8.1 CUHKMC and its employees or agents shall not be under any liability whatsoever for or in respect of:

    a. Any loss of or damage to any of the Successful Tenderer's property or that of its employees or agents however caused (whether by any negligence of CUHKMC or any of its employees or agents or otherwise); or

    b. Any injury to or death of any of the Successful Tenderer's employees or agents save and except any such injury or death was caused by negligence of CUHKMC or any of its employees or agents.

8.2 The Successful Tenderer shall indemnify CUHKMC and its employees or agents against any claim or demand made against, or any liability (including all costs, charges or expenses whatsoever (including, but not limited to, legal costs and disbursements)) incurred by, CUHKMC or any of its employees or agents in respect of:

    a. Any loss or damage referred to in sub-clause (a) of clause 8.1 of this part or any injury or death referred to in sub-clause (b) of clause 8.1 of this part (save and except any injury or death caused by negligence of CUHKMC or any of its employees or agents); or

    b. Any loss or damage sustained by, or any injury to or death of, any third party in consequence of negligence of the Successful Tenderer or any of its employees or agents.

8.3 In the event of any of the Successful Tenderer's employees or agents suffering any injury or death in the course of or arising out of the Contract and whether there be a claim for compensation or not, the Successful Tenderer shall within 7 clear working days give notice in writing of such injury or death to CUHKMC.

8.4 The Successful Tenderer shall indemnify CUHKMC for all costs and damages arising from the delay or failure in the delivery and / or rejection of the Services or any part thereof.

8.5 In the event that the Successful Tenderer sells or supplies any goods (collectively, "Goods") to CUHKMC under the Contract, the Successful Tenderer shall, and (as applicable) shall procure the manufacturer to, indemnify CUHKMC against all claims arising at any time that the sale, use or possession of the Goods infringes any patent rights, copyrights or registered design or other intellectual property rights of any third party, or on account of any claims for royalties arising from the sale, use or possession of the Goods. The Successful Tenderer shall be liable for all costs and damages suffered or incurred by CUHKMC that may arise from any such claims.

8.6 Where required by CUHKMC, the Successful Tenderer shall take out and maintain insurance with a reputable insurer in such manner as it is agreed with CUHKMC to cover its legal liabilities (including, but not limited to, legal liabilities arising out of loss or damage to property and injury or death to persons) as a result of or arising from the performance of the Contract by the Successful Tenderer.

8.7 For the purpose of this clause, "negligence" shall have the same meaning as that assigned to it in Section 2(1) of the Control of Exemption Clause Ordinance (Cap. 71 of the laws of Hong Kong).

9   Corrupt Gifts

If the Successful Tenderer or any employee, agent or sub-contractor of the Successful Tenderer shall be found to have committed an offence under the Prevention of Bribery Ordinance (Cap. 201 of the laws of Hong Kong) for the time being in force or any subsidiary legislation made thereafter or under any law of a similar nature in relation to the Contract or any other CUHKMC contract, CUHKMC shall have the right to terminate the Contract, without entitling the Successful Tenderer to any compensation therefor, and the Successful Tenderer shall indemnify CUHKMC against all costs (including, but not limited to, legal costs and disbursements), claims, damages, losses and expenses necessarily incurred or suffered as a result thereof by CUHKMC.

10   Proprietary Right

The copyright and other intellectual property rights of whatever nature subsisted in any software supplied by the Successful Tenderer to CUHKMC (other than any software of which its development has been commissioned to the Successful Tenderer by CUHKMC as the subject matter of the Services and of which all rights therein and ownership thereof shall vest in CUHKMC absolutely) are and shall remain the property of the Successful Tenderer or the relevant copyright owner and the Successful Tenderer shall grant, or the Successful Tenderer shall procure and ensure the relevant copyright owner to grant, to each of CUHKMC and its authorised users an irrevocable, royalty-free, and non-exclusive licence to use the said software.

11   Applicable Law and Dispute Resolution

11.1   The validity and interpretation of the Contract shall be governed in all respects by the laws of Hong Kong.

11.2   The Successful Tenderer shall, and shall procure its employees, agents and subcontractors to, comply with all applicable international and local laws, rules and regulations pertinent to its obligations under the Contract.

11.3   For any dispute, controversy, difference or claim arising out of or relating to the Contract (each a "Dispute"), CUHKMC and the Successful Tenderer shall attempt in good faith to resolve such Dispute by negotiation. If a Dispute cannot be resolved by good faith negotiation between CUHKMC and the Successful Tenderer within 30 days after such negotiation is first initiated by either or both of them, such Dispute shall be referred to and finally resolved by arbitration administered by the Hong Kong International Arbitration Centre ("HKIAC") under the HKIAC Administered Arbitration Rules in force when the notice of arbitration is submitted. The seat of arbitration shall be Hong Kong. The number of arbitrators shall be one.

12   Data Protection

12.1   The Successful Tenderer shall comply with the Personal Data (Privacy) Ordinance (Cap. 486 of the laws of Hong Kong) ("PDPO") and any applicable codes and guidelines issued by the Office of the Privacy Commissioner for Personal Data, Hong Kong and/or other relevant regulatory or professional bodies (as may be amended from time to time).

12.2 Without prejudice to the generality of clause 12.1 of this part, the Successful Tenderer shall only use Personal Data (as defined in PDPO) received or collected pursuant to the Contract for the purpose of performing its obligations under the Contract.

13 Publicity

13.1 The Successful Tenderer shall submit to CUHKMC for its review, comment and consent any advertising or other publicity material: (i) which are related to the Contract or the Goods/Services supplied/ to be supplied or other work done/ to be done in connection with the Contract; (ii) wherein the name of CUHKMC (or any affiliate of CUHKMC) or CUHK Medical Centre (or CUHK Medical Clinic) is mentioned or referred to or any trade name, trade mark, service mark, logo, or other proprietary business designation of CUHKMC (or any affiliate of CUHKMC) or CUHK Medical Centre (or CUHK Medical Clinic) (collectively, "Marks") is shown; or (iii) from which a connection with CUHKMC (or any affiliate of CUHKMC) can reasonably be inferred or implied, before the final production of such material.

13.2 The Successful Tenderer shall not publish or use any advertising or other publicity material referred to in clause 13.1 of this part for any promotion or marketing purposes, or otherwise refer to CUHKMC (or any affiliate of CUHKMC) or CUHK Medical Centre (or CUHK Medical Clinic) or use any Marks in any manner, without the prior written consent of CUHKMC and complying with CUHKMC's guidelines concerning making reference and use of Marks.

13.3 Nothing in the Contract expressly or impliedly constitutes an approval or endorsement by CUHKMC of any goods or services supplied by the Successful Tenderer, and the Successful Tenderer agrees not to conduct itself in such a way as to imply or express any such approval or endorsement. Nothing in the Contract shall confer on the Successful Tenderer any ownership rights in any Marks.

14 Confidential Information

The Successful Tenderer shall ensure that its directors, officers, employees, agents, sub-contractors, and professional advisors (collectively, "Successful Tenderer's Representatives") should treat any oral or written information of or about CUHKMC and/or its affiliates that is non-public which they obtain during the discussions or negotiations for and/or during the performance under the Contract, or accidentally overhear or encounter when carrying out their work on any CUHKMC premises, as confidential, and they should not disclose such information to any third party and shall only use such information for the purpose of performing its obligations under the Contract.

15   Performance Monitoring

Tenderers should note that in the event a Tenderer is awarded the Contract, the Successful Tenderer's performance under the Contract shall be monitored and taken into account in evaluating the Successful Tenderer's tenders in response to invitations for tenders issued by CUHKMC in the future. If in the sole opinion of CUHKMC, the performance of the Successful Tenderer under the Contract is unsatisfactory, CUHKMC may in its absolute discretion disqualify the Successful Tenderer, its holding company and subsidiaries from participation in any future tenders issued by CUHKMC, for such period as CUHKMC may in its entire discretion consider appropriate. Tenders from any Tenderer who has been so disqualified from tendering by CUHKMC shall be rejected.

16   Code of Conduct

Having due regard to the corporate image and reputation of CUHKMC and the need to uphold corporate social responsibilities, the Successful Tenderer shall, and procure its employees, agents and subcontractors to, comply with the code of conduct of suppliers titled "Responsible Sourcing Guideline of CUHKMC", which is applicable to all suppliers of CUHKMC. The Responsible Sourcing Guideline of CUHKMC can be obtained from the website of CUHKMC.

17   Occupational Safety and Health ("OSH")

17.1   The Successful Tenderer shall, so far as is reasonably practicable, take all reasonable steps to ensure the health and safety at work of all its employees, agents, and sub-contractors performing the Successful Tenderer's obligations under the Contract. The Successful Tenderer shall for the purpose of the Contract, where applicable:

a.   Provide and maintain plant and systems of work that are safe and without risks to health;

b.   Conduct regular work safety risk assessment exercises and make arrangements to ensure the safety and absence of risks to the health of its employees, agents, and sub-contractors in connection with the use, handling, storage and transportation of plant or substances;

c.   Provide adequate information, instructions, training and supervision to its employees, agents, and sub-contractors on work safety;

d.   Maintain the workplace, including ingress and egress thereto, as far as is within its control, safe and without risks to health;

e.   Conduct and monitor OSH compliance;

f.   Keep and provide proper documentation of training records, duty rosters, incident reports, audit and inspection records and personal particulars of staff, if required by CUHKMC; and

g.   Ensure that its employees, agents, and sub-contractors take care of the safety and health of other persons who may be affected by their act or omission and co-operate with the CUHKMC representatives and such other persons to ensure compliance with any applicable statutory requirements.

17.2 The Successful Tenderer shall fully indemnify CUHKMC from and against all claims, actions, proceedings, demands and suits brought against and/or fines and penalties imposed on CUHKMC arising directly or indirectly out of or in connection with the failure of the Successful Tenderer to comply with part or any obligations imposed under any applicable statutory requirements, including the Occupational Safety and Health Ordinance (Cap. 509 of the laws of Hong Kong) and all costs (including, but not limited to, legal costs and disbursements) and expenses in connection therewith.

18   Intellectual Property Right

CUHKMC shall be the exclusive owner of all deliverables, information, reports, documents, software, data and materials created, supplied, or produced under the Contract, as well as the copyrights and intellectual property rights therein. The appointment of the Successful Tenderer and payment by CUHKMC of the Prices in accordance with the Contract shall operate to assign to CUHKMC automatically the entire copyright and intellectual property rights mentioned above without further act by either party to the Contract being necessary. The Successful Tenderer agrees upon demand by CUHKMC (whether during or after the Term) to execute such additional documentation as CUHKMC may require to provide evidence and confirm the assignment of such copyrights and intellectual property rights to CUHKMC. Upon completion of the Services, the Successful Tenderer will be required to deliver to CUHKMC all working papers, computer disks, tapes or other materials and documents provided to or prepared by the Successful Tenderer pursuant to the Contract.
The Successful Tenderer shall ensure that no intellectual property rights of any third party have been and/or will be infringed in the provision of the Services or the performance of the Contract, or in the deliverables of the Services or the use thereof, and shall indemnify CUHKMC against any claims for breach of intellectual property rights.

19   Term

The Term of the Contract refers to the period of time from the Commencement Date as defined in the Tender Brief until the expiration of the Service Term as defined in the Tender Brief, unless the Contract is terminated prematurely.

20   Termination

20.1 The Contract may be terminated by CUHKMC by giving the other party sixty (60) days' prior notice in writing to terminate the Contract.

20.2 If:

a.   the Successful Tenderer is in breach of any of it warranties and undertakings under the Contract;

b.   the Successful Tenderer is in breach of any of the terms of the Contract, if the breach is remediable but the Successful Tenderer fails to remedy such breach within thirty (30) days after the service of a notice from CUHKMC giving particulars of such breach and requiring its remedy;

c. the Successful Tenderer is in breach of any of the terms of the Contract which in the opinion of CUHKMC is non-remediable;

d. the Successful Tenderer has made a material misrepresentation during the tendering process of the Contract; or

e. CUHKMC is given the right to terminate the Contract under any other terms of the Contract,

CUHKMC may at its discretion terminate the Contract forthwith without prejudice to its right and entitlement to claim damages for the breach.

20.3 CUHKMC may terminate the Contract forthwith without notice if:

a. a proposal is made for a voluntary arrangement or any other composition, scheme or arrangement with, or assignment for the benefit of, the Successful Tenderer's creditors;

b. if the Successful Tenderer is a body incorporate, the shareholder(s) of the Successful Tenderer has/have resolved to wind up the Successful Tenderer (other than voluntarily for the purpose of bona fide reconstruction or solvent amalgamation);

c. the Successful Tenderer is subject to a winding-up/bankruptcy petition against it/him;

d. a winding up/bankruptcy order has been made against the Successful Tenderer by a court;

e. the Successful Tender is subject to receivership/administration or a receiving order/order for administration;

f. the Successful Tenderer is subject to any investigation or proceedings which could reasonably be expected to have adverse impact on the reputation of CUHKMC as a provider of medical and/or healthcare services in association with the Successful Tenderer; or

g. there is a change of control in the Successful Tenderer (for this purpose, "control" means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of a corporate, whether through the direct or indirect ownership of voting securities, by contract, or otherwise).

20.4 Expiry or termination of the Contract shall be without prejudice to the rights and obligations of CUHKMC or the Successful Tenderer accrued prior to such expiry or termination.

20.5 All provisions of the Contract which in order to give effect to their meaning need to survive expiry or termination of the Contract shall remain in full force and effect after such expiry or termination.

21   No Partnership

Nothing in the Contract shall be taken to constitute a partnership, a joint venture or the relationship of principal and agent between CUHKMC and the Successful Tenderer.

22 No Assignment

22.1 The Successful Tenderer may not assign any right or transfer any obligation under the Contract without CUHKMC's prior written consent. Without prejudice to the aforementioned prohibition, the Successful Tenderer shall be responsible for all acts, omissions and defaults of its employees, agents, and subcontractors, and the employees of any of the aforesaid agent and subcontractors as if they were the Successful Tenderer's own.

22.2 Failure to comply with this clause shall constitute a material breach of the Contract.

23 Contracts (Rights of Third Parties) Ordinance

The application of the Contracts (Rights of Third Parties) Ordinance (Cap. 623 of the laws of Hong Kong) is expressly excluded and no person who is not a party to the Contract shall be entitled to enforce any right or term of the Contract pursuant to the Contracts (Rights of Third Parties) Ordinance.

24 Order of Precedence

In the event that there is any conflict, contradiction or ambiguity between any documents which form part of the Contract, the following order of precedence shall be applied in order to resolve any such conflict, contradiction or ambiguity:

a. Letter of Acceptance

b. Conditions of Contract;

c. Tender Brief;

d. Other negotiated terms as agreed between CUHKMC and the Successful Tenderer (if any);

e. Schedules as submitted by the Successful Tenderer (or part thereof) as accepted by CUHKMC and the Offer to be Bound signed by the Successful Tenderer; and

f. Terms of Tender.

PART IV

OFFER TO BE BOUND

1   I/We, do hereby bind myself/ourselves to execute orders for any or all of the services specified in the Schedule, which may during the period or periods specified in the Schedule be placed by the CUHKMC Representative at the prices quoted in the Schedule free of all other charges, subject to and in accordance with the Terms of Tender and Conditions of Contract.

2   I/We, also certify that the particulars given by me/us below, are correct:

2.1   The number of my/our/the Company's Business Registration Certificate is_____

2.2   The date of expiry of my/our/the company's Business Registration Certificate is_____

2.3   I/We/the Company is/are covered by an Employees' Compensation Insurance Policy, the particulars of which are as follows:

Policy No. _____

Name of Insurance Company _____

Period covered by the Policy is from _____

Brief particulars of the cover provided and any special conditions are as follows:

_____

_____

3   I am the Secretary / Managing Director of the Limited company hereinafter mentioned and duly authorised to bind the said Company by my signature.

I am a partner / We are partners in the firm hereinafter mentioned and duly authorized to bind the said firm and the partners therein for the time being.

The Tender is submitted with the authority and on behalf of _____

Company Limited whose registered office is situated at _____Hong Kong.

- or –

This Tender is submitted on behalf of myself / ourselves and the firm known as _____ of _____

Hong Kong and other partners hereof namely; (state names and residential addresses of all other partners):

_____

_____

4   In the event of any queries relating to our offer please contact _____ Tel. No._____.

5   Name(s) and address(es) of person(s) signing:

_____

_____

Signature (s): _____

Dated this _____ day of _____

Notes (1) All the particulars required above must be provided. (ii) Strike out clearly alternatives which are not applicable.

PART V

TENDEREE'S BRIEF

This Tenderee's Brief aims at providing Tenderers with general understanding of CUHK Medical Centre Limited ("CUHKMC" or "we", and "our" and "us" shall be construed accordingly) and should be read in conjunction with this Invitation to Tender issued by CUHKMC. The information contained herein is prepared to the best of our knowledge and should not be seen as binding.

Hospital at a Glance

CUHK Medical Centre Limited ("CUHKMC"), which operates CUHK Medical Centre ("Hospital"), a non-profit, private teaching hospital, is indirectly wholly owned by The Chinese University of Hong Kong ("CUHK").

CUHKMC is committed to provide innovative and patient-centered healthcare services, with package fees offered for inpatient services. This will bridge the service gap between private and public healthcare sectors by providing high-quality medical services with transparent and affordable pricing to middle-class families, so alleviating the pressure on the public healthcare system.

For more information about CUHK Medical Centre, please click into the hospital website: www.cuhkmc.hk

PART VI

TENDER BRIEF

1 **Information and Communications Technology (ICT) Vision**

1.1 As part of the service strategy, we aim to set up CUHKMC as a "SMART Hospital" with extensive adoption of Health ICT to support patient care and business operations, with a view to create values to patients. The objectives of the ICT-enabled services are:

 a) To improve the efficiency in both clinical and business operations;

 b) To enhance the quality of patient care services through adoption of ICT solutions that proactively assist doctors, nurses and other healthcare professionals in delivering quality patient care and ensuring patient safety; and

 c) To support the provision of patient-centred care through applications and services that enrich patient experiences and promote patient health.

1.2 In 2016, we conducted a consultancy study to formulate the future ICT Strategy and work plans. As part of the consultancy study, an enterprise ICT architecture framework (Figure 1) has been defined that serves as the framework to guide the realisation of the ICT Strategy. The architecture framework has the following components:

 a) **Application Architecture** to provide a set of interdependent layers for system component interacting in an integrated manner to support various business and service needs;

 b) **Data Integration Architecture** to translate the information requirements for operational performance; clinical audits, clinical research and management needs from clinical and business support systems, and define what data integration components are needed in the business operation;

 c) **Information Architecture** to provide data and clinical terminology standards to be adopted for data and system consistency and standardisation;

 d) **System Integration Platform** to integrate different layers/components, and exchanges data among them;

 e) **Security Framework** to ensure information confidentiality, integrity and availability;

 f) **Cloud Architecture** to provide the standards for the usage of cloud services;

 g) **Technology Architecture and Infrastructure** to support the application, information, and system and communication architectures development.

CUHKMC Target ICT Architecture Framework
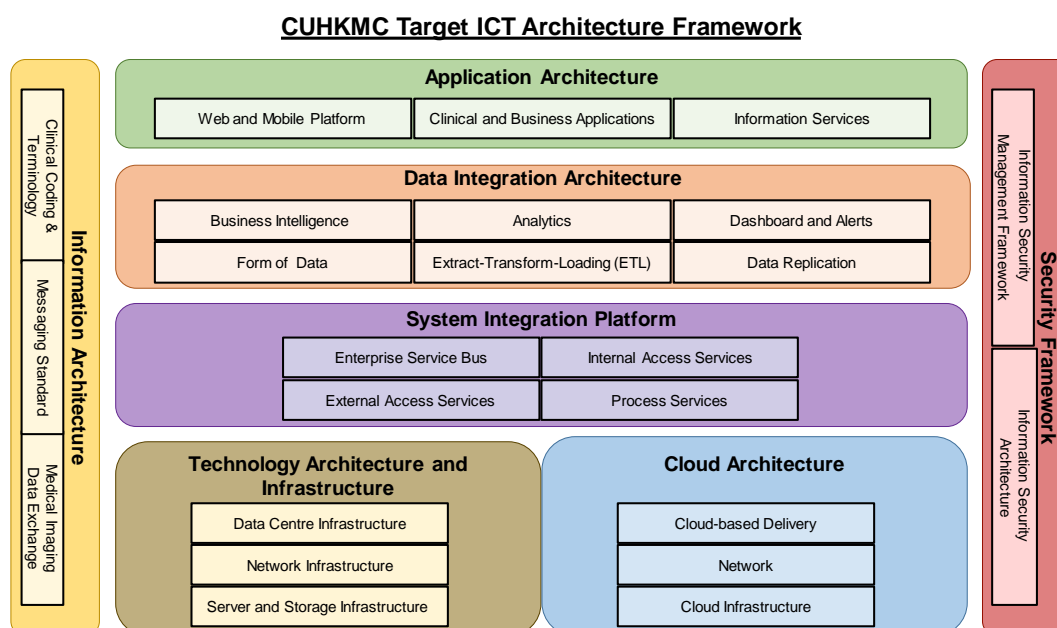
Figure 1 – Target ICT Architecture Framework for CUHKMC

1.3 We shall adopt state-of-art ICT technologies to enhance clinical outcomes of patient care and operational efficiency. Development and implementation of ICT solutions and technologies will commensurate with the phased opening of the hospital, development in services and growth in business.

2   Contract Term and Service Term

The Contract shall take effect from the award of the Contract (i.e. the date of the letter of acceptance issued by CUHKMC) or such other commencement date of the Contract as set out in the letter of acceptance issued by CUHKMC (the "Commencement Date"), and shall continue in force thereafter until the acceptance of the Services by CUHKMC. (the "Service Term"). The period of time from the Commencement Date to the end of the Service Term is referred to as the "Term".

3   Scope of Work

3.1 CUHKMC has developed a Hospital Information System (HIS) - Phase 1, 2 & 3 for its initial services. To fulfil rapid changes of business needs and requirements, the establishment of new Integrated Medicine Clinics, as well as the enhancement of existing services, CUHKMC intends to invite Tenderer to submit proposals for "Provision of Implementation Services for the Hospital Information System - Phase 4" (the "Services") in support of the operation of our new services. The Services shall include but not limited to:

   a)   Undertake overall project management for the Services;

   b)   Provide all necessary software, custom programs, hardware and consultancy services which comply with the functional and technical requirements;

c) Design and develop an integrated HIS – Phase 4 in accordance with the business and workflow requirements;

d) Implement and rollout the integrated HIS – Phase 4 to relevant departments;

e) Provide on-going support and maintenance to ensure continuous and smooth operation of the HIS – Phase 4 and its integration platform.

3.2 For details of the project requirements, Tenderer should refer to Section 4 - Requirements and Specifications.

4 **Requirements and Specifications**

4.1 Implementation Requirements

The Services may involve software, custom programs, hardware, and consultancy services supplied by multiple vendors. The Successful Tenderer will be the prime contractor whose major responsibilities include, but not limited to:

a) Be the overall system integrator and responsible for the successful implementation of the HIS – Phase 4 within the schedule and according to the requirements;

b) Appoint a Project Manager and a Deputy Project Manager to provide project management services to plan, monitor and control the project progress for the HIS – Phase 4 implementation;

c) Collect and analyse detailed business requirements through interviews, meetings and workshops with appropriate stakeholders;

d) Design the integrated HIS – Phase 4 according to the ICT Architecture Framework, business and technical requirements;

e) Configure, customise the system software and application software, develop custom programs, and integrate these software components according to the agreed integrated HIS – Phase 4 design. Tenderer will be responsible to provide the necessary computer resources including data centre, hardware, software and network resources for the development and testing of the integrated HIS – Phase 4;

f) Integrate the HIS – Phase 4 with the necessary external application software and equipment;

g) Conduct necessary testing including unit test, system test, integration test, user acceptance test to ensure the quality of the HIS – Phase 4;

h) Collaborate with the CUHKMC appointed vendors on ICT Physical Facilities and Infrastructure, application software and equipment to conduct capacity planning, data conversion, installation and commissioning of the integrated HIS – Phase 4;

i) Establish the necessary system operations and management procedures including backup and recovery, resilience, housekeeping etc.;

j) Implement and rollout the integrated HIS – Phase 4 according to the agreed schedule;

k)   Provide necessary training and support services to CUHKMC departmental and technical users;

l)   Provide on-going support and maintenance service to ensure continuous and smooth operation of the integrated HIS – Phase 4. These services include system operations, performance monitoring and tuning, backup and recovery, security management, technical support, fault diagnosis, problem resolution, system upgrade and enhancements;

m)   Provide advice and support on the design and implementation of closed-loop workflows for clinical and business operations and processes by adopting best practices incorporated in the integrated HIS – Phase 4, with the aim to attain Healthcare Information and Management Systems Society (HIMSS) Electronic Medical Record (EMR) Adoption Model Stage 6 on commissioning of the hospital and eventually Stage 7 on full operations of the hospital; and

n)   Provide expertise and insight on technology innovation to enable continuous technology refreshment to the proposed solution if appropriate.

Tenderer is required to propose the implementation approach and methodology for CUHKMC's consideration. Tenderer should also provide detailed description of the proposed solution including architecture design, application software, custom programs etc. Tenderer should also provide proposed implementation plan and timeline including major milestones.

4.2   Implementation Timetable

The proposed timetable for the implementation is shown in Figure 2 below. Tenderer can propose alternative implementation timetable for CUHKMC's consideration.

Legend: 🟩 High priority   🟦 Medium priority   🟨 Low priority   🟥 Nice to have

Sub-systems / Application Modules	Year	2023				2024				2025				2026				2027				2028			
	Quarter	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Pharmacy Enhancement 2023																									
Patient Own Medication									☆																
Drug Relabeling									☆																
Verbal Order									☆																
Drug Charge Splitting									☆																
Duplication Checking									☆																
Billing Enhancement 2023																									
Billing Enhancement – Radiology Surcharge									☆																
Room Charge Overwrite									☆																
eHRSS																									
Data Upload – Endoscopy Report										☆															
Data Upload – Lab Data										☆															
Data Upload - General Data Materialization (DM) Mode										☆															
Laboratory																									
Future Order										☆															

Sub- systems / Application Modules	Year	2023				2024				2025				2026				2027				2028			
	Quarter	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Radiology																									
Radiology Request Enhancement (regrouping)											☆														
Radiology Interface Phase 2 Doctor List API Update Bill Content API Add Accession ID to lookup the order											☆														
Appointment Enquiry																									
New Appointment Enquiry											☆														
Enhance Patient overall appointment and booking record in visit summary												☆													
PMS Enhancement																									
Batch Vaccine Phase 1 - Staff Only														☆											
Batch Vaccine Phase 2 - MS Form to HIS & ARM Payment to HIS Integration														☆											
Bed Board (Interim)																									
Build up Bed Board							☆																		
Bed assignment overview							☆																		
OT assignment overview							☆																		
Integrated Medicine Clinic (IMC)																									
IMC Check-in									☆																
Visit History									☆																
Clinical History									☆																
Letter & Cert									☆																
PDF Report to HIS									☆																
Consumable Enquiry																									
Consumable Enquiry										☆															
Consumable Record										☆															
Integration with 3rd Party																									
Anescheck Interface for drug kit											☆														
Management Report																									
Extract Transform Load (ETL) tool setup and implementation									☆																
6 Reports for DH Inspection									☆																
14 Executive Dashboards									☆																

Figure 2 – Proposed Implementation Timetable for HIS

4.3   Business and Functional Requirements

The CUHKMC has an existing Hospital Information System (HIS) – Phase 1, 2 and 3 with core functions developed and implemented. With the commencement of new services, additional modules and functions will need to be developed to support these services. The corresponding features are listed in the table below:

Application Modules	Features
Hospital Information System (HIS) – Phase 4	
Pharmacy Module	• Patient Own Medication • Drug Relabeling • Verbal Orders • Drug Charge Splitting • Duplication Checking
Billing Module	• Radiology Surcharge • Room Charge Overwrite
eHRSS	• Data upload for endoscopy and lab reports • Implementation for Data Materialization as per eHRSS standard
Laboratory	• Future Order
Radiology	• Regrouping the radiology exams in HIS • Interface with RIS for the following information: Doctor List API Update bill content API Add accession no to lookup the order interface
Appointment Enquiry	New appointment enquiry for searching the scheduled appointment or admission for both existing/new patients
ARM online payment	• Interfacing with 3rd party payment gateway
PMS enhancement	• Batch Vaccine Phase 1 - Staff Only • Batch Vaccine Phase 2 - MS Form to HIS & ARM Payment to HIS Integration
Bed Board	• Build up Bed Board • Bed Assignment Overview • OT Assignment Overview
Integrated Medicine Clinic	• Custom check-in page in HIS for interfacing with NONG's system • Updating the visit history to show NONG's appointments • Updating the clinical history to show NONG's records • Updating the letter & certificate • Receiving the medical records from NONG's
Consumable Enquiry	• Consumable enquiry • Consumable record
3rd Party Integration	• Anescheck interface for drug kit medication charges
Executive Management Reports	• Implement the data extract using Extract Transform and Loading Tool (ETL) • 6 DH reports + 14 executive dashboard for Hospital Management

The key business and functional requirements are specified in <u>Schedule 7 – Business and Functional Requirement Compliance</u>:

a)   Tenderer should observe the priority set out in Section 4.2 Implementation Timetable. The proposed solution must fulfill all "Mandatory" requirements with "High" or "Medium" implementation priority. Tenderer who fails to fulfill these requirements may result in disqualification.

Tenderer shall optionally propose solutions that can meet the "Optional" requirements and/or those requirements in "Low" / "Nice to have" implementation priority. CUHKMC reserves the right to accept these optional services / products or not.

b)   Tenderer must indicate whether the proposed solution comply with the stated requirements. Tenderer is also required to provide details about how the proposed solution can meet the requirements or customisation / workaround / other details.

4.4   Architecture and Technical Requirements

Interoperability is essential to support the flow of information among systems and to improve the coherence of systems maintained by CUHKMC. The CUHKMC Target ICT Architecture Framework aims to define the set of architecture and technical requirements to facilitate CUHKMC systems to communicate and interoperate with other systems, both within CUHKMC and external to CUHKMC, efficiently and effectively.   In addition, it promotes and fosters the adoption of open architecture to support the system implementation. By adopting these requirements, CUHKMC systems can ensure interoperability between systems while at the same time enjoy the flexibility to select different hardware, and systems and application software to implement solutions.

On the other hand, CUHKMC strongly encourages the adoption of international **IT Security** standards and best practices in the industry. The CUHKMC Target ICT Architecture Framework is also supporting the operation of the IT security management to oversee and steer the implementation of the IT security standards and measures for CUHKMC systems. Governing by the IT security framework, proactive steps would be taken in combating threats related to IT security and cyber attacks by continuously monitoring IT security related vulnerabilities and threats, and providing alerts in handling information security incidents and cyber attacks. Moreover, the CUHKMC systems are required to encrypt data during network transmission to ensure data is secured, and access to it is restricted to authorised personnel only.

Patients' health record in the systems amounts to personal data, which is protected under the Personal Data (Privacy) Ordinance. In order to protect the **Data Privacy** of a person in relation to personal data, the CUHKMC Target ICT Architecture Framework also acts in accordance with the requirements under the Personal Data (Privacy) Ordinance when handling patients' health record in the CUHKMC systems. For different purposes and at different times, patients may be invited to provide personal data to CUHKMC on a voluntary basis. CUHKMC will specify the collection purpose and intended usage of the personal data when such information is provided and advise how to request access to or make correction of the personal data. Unless permitted or required by law, CUHKMC will not disclose the personal data to any third parties without prior consent.

The HIS implementation shall respect to the CUHKMC Target ICT Architectures Framework. The key architecture and technical requirements are specified in Schedule 8 – Architecture and Technical Requirement Compliance:

a)   The proposed solution must fulfill all "Mandatory" requirements. Tenderer who fails to fulfill these requirements may result in disqualification.

b)   Tenderers shall optionally propose solutions that can meet the "Optional" requirements. CUHKMC reserves the right to accept these optional services / products or not.

Tenderer must indicate whether the proposed solution comply with the stated requirements. Tenderer is also required to provide details about how the proposed solution can meet the requirements or customisation / workaround / other details.

5   Service Level Agreement

5.1   The Purpose

Service level management aims to ensure that all operational services and performance are measured and executed consistently and professionally.

This Service Level Agreement (SLA) describes the service level indicators and the required service levels applicable to the Hospital Information System (HIS). It will form an integral part of the Contract signed between CUHKMC and the Successful Tenderer, supplementing its clauses and conditions.

If the required service levels are not respected, CUHKMC will claim liquidated damages. The application of liquidated damages aims to ensure the proper service delivery to CUHKMC. The liquidated damages will be treated separately and cumulative for the different service level indicators, and their amount will be discounted from the services' invoices.

No Liquidated Damages are applied in the case of a situation of "Force Majeure", nor if the problem results from some wrongdoing on the part of tCUHKMC or one of its representatives.

Specifically excluded from the calculations of availability and Incident Management are outages caused by:

- Situations of Force Majeure: Circumstances related to nature beyond the Successful Tenderer's reasonable control: hurricanes, earthquakes and other natural disasters;

- Duration of essential maintenance and scheduled upgrades during scheduled maintenance windows subject to prior notice to CUHKMC. CUHKMC will have the right to exclude specific time windows from maintenance to ensure the service is under particular circumstances;

- Wrong operation of the equipment or service, or delay introduced by CUHKMC.

This SLA will be valid during the whole contract lifetime. Any change to this SLA has to be approved by both parties and enacted by a contract amendment. Additions and amendments to this Service Level Agreement are subject to the procedures described in the Contract. A modification of the SLA shall be mainly motivated by adjusting target values or liquidated damages that would have turned out to be inadequate or unsatisfactory.

5.2   General Definitions

a) Location
Access to the service is independent of the actual location of the users.

b) Standard Working Hours
The indicative standard working time of CUHKMC is Monday to Friday, from 9:00 a.m. till 18:00 p.m. local time at the place of delivery of the service, except Saturday, Sunday, and Public Holidays.

c) Continuous Maintenance
The ongoing application support for HIS includes HIS-related system interfaces, performance and security tuning, software maintenance, Support Packages/patches, release of new versions, or software upgrades.

d) Monitored Operation
When the systems are under constant observation so that stabilisation measures can be implemented if irregularities occur (for example, total system shutdown, disruption to critical functions of the system, serious database errors).

e) Ticketing System
Documentation of CUHKMC's request is in the form of an incident ticket or email for further processing, monitoring, and reporting. Each Ticket is given a number, which is system generated to provide CUHKMC as confirmation of receipt. CUHKMC can follow the progress and status of the request using the ticket number.

Tickets may only be opened by persons authorised by CUHKMC. A ticket has been created successfully if CUHKMC receives a confirmation or the CUHKMC uses a ticketing system with an efficient audit system.

5.3   Change Request During Ongoing Operation Phase

Suppose changes are identified during the provision of the agreed services that CUHKMC's or Successful Tenderer's view affects the scope, content, methods, or schedule. In that case, they must be decided by written amendment or supplement to the Contract. All major change requests must be documented and tracked by Change Request communications.

Change Management for Significant Change Request: Implementation of significant change requests in the HIS system as project work. Examples include introducing new software components, implementing business processes, interface programming, or creating an archiving concept. The supplier and CUHKMC should agree on a common identification of the significant change request.

Change Management for Minor Changes Request: As part of the Continuous Improvement process, running applications are optimised and adjusted to new requests. For example, optimise business processes, create reports, support test scenarios, update documentation, and proactive performance optimisation. Documentation detailing any changes implemented by the Successful Tenderer is sent to CUHKMC.

5.4   Support

The Successful Tenderer must establish and maintain an organisation and process to provide support for the HIS to CUHKMC. Support shall include:

a)   diagnosis of problems or performance deficiencies of the HIS;

b)   a resolution of the incident or performance deficiencies of the HIS. Support Service must contain the following parts:

Level Support: This refers to user support in incident management in writing (email, Ticket); the Successful Tenderer must process requests sent through the support mechanism at the specialist level.

Continuous Maintenance: This refers to the ongoing support of the applications used and the performance analysis. The service will be provided proactively or in response to CUHKMC's requests depending on the task definition. In the event of any known bottlenecks or problems, the Successful Tenderer will actively contact CUHKMC.

Continuous Improvement: The Successful Tenderer also provides constant improvement services, including improvement and further development of the system at the request of CUHKMC. The Successful Tenderer understands these services to include:

(i)   Adapting, improving and further developing running applications;
(ii)   Development services for newly defined needs.

5.5   Service Support Structure and Key Performance Indicators (KPI)

During the agreed service time, the Successful Tenderer will provide a support structure to ensure that the technical and application expertise resources required to provide the service are available and have a sufficient competency in the languages to communicate with CUHKMC, including their contact data (email, telephone). The above-mentioned includes establishing ticketing, monitoring, and reporting system for CUHKMC.

Before the Contract starts, CUHKMC will name Key Users that will act as the counterpart for the Successful Tenderer. The Key Users has to be knowledgeable about the objective of this Contract and has to be equipped with the necessary competencies and authorisations to make essential decisions on behalf of CUHKMC. CUHKMC will ensure that all Key Users are familiar with the support process, including ticket creation and processing via the Successful Tenderer Service Hotline.

Under this Contract, an error or request will be processed after issuing a ticket to the Successful Tenderer detailing the fault/ request. CUHKMC must open the Ticket.

Suppose the agreed services' provision changes are identified that CUHKMC's or the Successful Tenderer's view affects the scope (by material reduction or excess), content, methods, or schedule. In that case, they must be agreed by written amendment or supplement to the Contract.

5.6   Support Service Time

The Successful Tenderer implements a Service Desk function (Hotline & On-site) which CUHKMC users may invoke when they need assistance from the Successful Tenderer.   Monday to Friday, 09:00 – 18:00 local time at the delivery of the service, except Saturday, Sunday and public holidays.

5.7   Priorities And Reaction Time

Each Ticket gets assigned one of the following priority levels:

Incident Priority	Description	Business Impact
1 – Critical	- Major system(s) down - No workaround exists	- Business stopped - User Impact: All
2 – High	- Major system(s) down - Workaround exists.	- Business interrupted - User Impact: Multiple
3 – Medium	- Minor issues; workaround exists - Password changes, security changes	- Workflow interrupted - User Impact: single user
4 - Low	- Minor issues; workaround exists - Configuration changes, security changes	- Workflow inconvenienced - User Impact: single user

CUHKMC initially prioritises when creating the Ticket and may alter the priority during the processing cycle. Based on mutual agreement, the Successful Tenderer may also adjust the priority.

Service Level initial response time and required Service level for remediation:

Incident Priority	Initial Response Time	Resolve Time
1 – Critical	1 Business Hour 7x24 standby, onsite in 4 hours	8 Business Hours
2 – High	4 Business Hours	24 Business Hours
3 – Medium	8 Business Hours	48 Business Hours
4 – Low	24 Business Hours	96 Business Hours

All onsite service shall be provided if the incident could not be solved by Service Hotline / Email / Remote Support, which shall be provided on the next business day after enquiries is received. (Except **Priority 1 – Critical** incidents). If the CUHKMC changes the priority of a message, the service level "Initial Response Time" restarts from this point. The Successful Tenderer can only maintain the agreed "Initial Response Time" service level parameters for tickets that have been submitted according to the relevant support concept.

KPI Measurement:

The Service Desk Reaction and Remediation Time is one of the KPIs used to measure the performance of the Successful Tenderer. The Successful Tenderer shall ensure that they fully comply with the Requirements and the agreed service levels, and shall provide monthly reports containing key performance data for CUHKMC's record and inspection. CUHKMC and the Successful Tenderer shall hold meetings at agreed intervals to review the performance of the Services.

CUHKMC reserves the right to terminate the Contract if the Successful Tenderer fails to meet the KPI, the Requirements and the agreed service levels cumulatively more than six (6) times over consecutive six (6) months. The corresponding details can be found in the "Termination" clause set out in Part III (Conditions of Contract). CUHKMC may claim liquidated damages from the Successful Tenderer for any loss or damages sustained by CUHKMC.

For any delay in the delivery of Services and/or deliverables by the agreed timeline to CUHKMC due to any default on the part of the Successful Tenderer, CUHKMC may consider issuing written warning. Upon receiving three (3) times of the written warning, CUHKMC shall have the right to terminate the Contract. The Successful Tenderer shall also pay to CUHKMC as and by way of liquidated damages for any loss or damages sustained by CUHKMC.

If it is declared (by the Contractor) or observed (by CUHKMC) that the given purpose is not respected, liquidated damages will also be applied.

6 <u>Demonstration</u>

6.1   The demonstration will be set up and conducted by the Tenderer using the Tenderer's own equipment.

6.2   The Tenderer may be required to work outside normal office hours during the demonstration period.

6.3   The Tenderer shall be responsible for all costs of the demonstration.

6.4   If the Tenderer is selected to perform demonstration of the proposed solution, it shall be informed of the schedule of the demonstration in due course of no less than 2 calendar weeks in advance. It shall then conduct and complete the demonstration within the period specified by CUHKMC.

6.5 If the Tenderer fails to demonstrate the requested requirements or fails to complete the demonstration within the period specified by CUHKMC, its Tender will be disqualified.

7   Acceptance Test

7.1 The Successful Tenderer must deliver all the proposed Services and/or deliverables and complete successfully the acceptance testing in accordance with the provision of the Contract.

8   Training

8.1 The Tenderer shall provide information on free and chargeable training to be offered by completing Schedule 11 – Training. The following summary information should be provided:

a)   Course title;

b)   Duration of course;

c)   Location of course;

d)   Format of training.

8.2 Details for each course covering the following shall be provided;

a)   Content of course;

b)   Type of target trainee;

c)   Approximate number of trainees per class;

d)   Frequency of classes to be organised;

e)   Training facilities provided.

8.3 The Tenderer should describe in Schedule 11 – Training its training resources and facilities, including the structure of its local and overseas training centres, and the type of training offered by these centres.

8.4 The training should be conducted regularly or when requested by CUHKMC.

8.5 Free courses, charging rate or bulk charging rate for the training must be clearly specified in Schedule 18 – Price.

9   Other Information

9.1 Tenderer is requested to supply any information which the tenderer considers relevant to the proposal to CUHKMC.

10   Submission of Tender

10.1   Two-Envelope Bidding

   a)   This Tender shall be conducted in a two-envelope bidding process. Tenderer must submit the technical and price information in two separate sealed envelopes, one marked with the word "Technical Proposal" and the other with "Price Proposal" in the following manner:-

   (i)   Technical Proposal – contains the complete set of tender documents, except Schedule 18 – Price and all supplementing quotations.

   (ii)   Price Proposal – contains the Schedule 18 – Price and all supplementing quotations.

   (Note: Tender reference number; Description and Closing Date shall be marked on the envelopes for easy identification.)

   b)   CUHKMC will complete the technical assessment first by evaluating the technical proposals of the Tenders according to the Requirements and Specification and Demonstration (if required). The price proposals of those Tenders which can pass technical assessment will be evaluated further based on the price proposal.

10.2   Interested Tenderers must provide the following information in their Tender submission:

   a)   **Schedule 1 – Company / Organisation Profile**: including organisation charts, professional qualifications of staff, size, years of operation, past and present clients, range and scope of services. If the Tenderer wishes to fulfill its obligations under this Contract through subcontracting or partnership with third parties, details including name of the subcontracting or partnership organisation and responsibilities should be stated;

   b)   **Schedule 2 – Understanding of the Scope of Work:** A brief description of the Tenderer's understanding of the scope of work required and the extent of assistance required from CUHKMC. The proposal shall include quality management structure and assurance system/plan and compliance to the SLA;

   c)   **Schedule 3 – Implementation Requirements**: Solution descriptions, implementation approach and methodology to be used;

   d)   **Schedule 4 – Implementation Team**: The names, qualification, relevant experience, language proficiency, percentage of his/her time allocated to this project, and the place of residence of persons nominated to undertake the Contract;

   e)   **Schedule 5 – Implementation Timetable**: Proposed work plan with key milestones;

   f)   **Schedule 6 – Software**: Proposed list of mandatory and optional application software, custom programs, system software, software tools for this Service;

g) **Schedule 7 – Compliance to Business and Functional Requirements**: Tenderer should provide details of the proposed solution's compliance to the requirements in accordance with Section 4.3 of Part IV (Business and Functional Requirements);

h) **Schedule 8 – Compliance to Architecture and Technical Requirements**: Tenderer should provide details of the proposed solution's compliance to the requirements in accordance with Section 4.4 of Part IV (Architecture and Technical Requirements);

i) **Schedule 9 – Compliance to Service Level Agreement**: Tenderer should provide details of the compliance to the requirements in accordance with Section 5 of Part IV (Service Level Agreement);

j) **Schedule 10 – Hardware**: Proposed list of mandatory and optional hardware to be used for this Service;

k) **Schedule 11 – Training**: List of training courses to be offered in accordance with Section 8 (Training);

l) **Schedule 12 – Experience and Job Reference**: Description of similar engagements previously undertaken within the recent 3 years, particularly in large healthcare organisations and/or hospital systems;

m) **Schedule 13 –** The services to be provided by CUHKMC to facilitate preparation of the work and deliverables;

n) **Schedule 14** – Security Requirements Compliance Table

o) **Schedule 15** – Duly completed and signed Consent to Disclosure;

p) **Schedule 16** – Duly completed and signed Non-Collusion Certificate;

q) **Schedule 17** – Personal Data (Privacy) (Amendment) Ordinance

r) **Schedule 18 – Price**: The fixed fee including breakdown of relevant costs and discounts for all the proposed software, custom programs, hardware, training, consultancy services and other costs.

The offer without full submission of the above will not be considered.

11 <u>Payment Terms</u>

The Tenderer shall specify the proposed payment terms in <u>Schedule 18 – Price</u>.

Payment shall be made within 30 clear working days from the date of receipt of invoice or acceptance of the Services by CUHKMC, whichever is the later.

12 Selection Criteria

12.1 Mandatory Requirements Assessment

Full compliance with the mandatory requirements as stipulated in Section 4.3 of Part IV (Business and Functional Requirements), Section 4.4 of Part IV (Architecture and Technical Requirements) and Section 5 of Part IV (Service Level Agreement) are required. Tenderer should provide the compliance details in Schedule 7, Schedule 8 and Schedule 9 respectively. Tender proposals will not be considered further if the mandatory requirements cannot be fully satisfied.

12.2 A marking scheme with weighting of 60% on Technical Assessment and 40% on Price Assessment will be adopted. Scoring distribution is as follows:

Selection Criteria	Weighting
Technical Assessment	**60%**
(a) Quality of Work Plan including methodology, approaches, products, ranges and depth of services, and resources allocated to the Contract/assignment. Quality management structure and assurance system/plan.	30%
(b) Qualifications and experience of the nominated person(s) to undertake the Contract/assignment.	20%
(c) Proven experience and track record in provision of the Services or similar assignments for healthcare organisations in Hong Kong and/or overseas. Summaries of relevant assignments conducted should be provided (e.g. list of clientele, client's assessment/ feedback).	10%
Price Assessment	**40%**

12.3 Technical Assessment

The weighted technical assessment score of a proposal shall be determined in accordance with the following formula:

$$60 \times \frac{\text{Total technical score of the conforming proposal being assessed}}{\text{The highest total technical score among all the conforming proposals}}$$

Any offer which scores less than 30 marks in the Technical Assessment will be considered disqualified and shall not proceed to Price Assessment.

12.4   Price Assessment

The price assessment score is calculated as follows:

$$40 \times \frac{\text{Lowest Tender price among the conforming proposals}}{\text{Tender price of the proposal being assessed}}$$

12.5   The offer obtained the highest combined score, i.e. technical assessment score plus price assessment score, would be recommended for acceptance.

PART VII

SCHEDULE OF SUBMISSIONS

Schedule 1: Company/Organisation Profile

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

_____   _____

Telephone: Email:

_____   _____

Authorized Signature: Date:

_____   _____

Schedule 2 – Understanding of the Scope of Work

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

_____   _____

Telephone: Email:

_____   _____

Authorized Signature: Date:

_____   _____

Schedule 3 – Implementation Requirements

Schedule 4 – Implementation Team

Schedule 5 – Implementation Timetable

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

_____   _____

Telephone: Email:

_____   _____

Authorized Signature: Date:

_____   _____

Schedule 6 – Software

1. Mandatory Software

Item No.	Product No.	Version No.	Product Name / Description

2. Optional Software

Item No.	Product No.	Version No.	Product Name / Description

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

_____   _____

Telephone: Email:

_____   _____

Authorized Signature: Date:

_____   _____

3. Mandatory Custom Programs

Item No.	Product No.	Version No.	Product Name / Description

4. Optional Custom Programs

Item No.	Product No.	Version No.	Product Name / Description

Person Authorized to Sign Tender

Name of Company with Company Chop:　　Name and Title:

_____　　_____

Telephone:　　Email:

_____　　_____

Authorized Signature:　　Date:

_____　　_____

Sub-systems	Application Modules	Requirement Code	Requirements	Priority (High / Medium / Low / Nice to Have)	Mandatory (M) / Optional (O)	Compliance (Yes / No)	Solution details
Pharmacy Module	Medicine Order Entry	PHA-001	To be able to support patient own medication (POM) workflow and documentation.	High	M		
	Dispensing	PHA-002	To be able to have drug relabelling for POM and for discharge medication from inpatient drug.	High	M		
	Medicine Order Entry	PHA-003	Able to identify between verbal order and entered by pharmacy due to the order prescribed in admission note, progress note, and others reasons.	High	M		
	Drug Charging	PHA-004	Able to have auto split the package covered and un-covered medication.	High	M		
	Medicine Order Entry	PHA-005	Support the pre-consult station in WEC on Health Assessment from the queue.	High	M		
Billing Module	Radiology Surcharge	BILL-001	Able to support the radiology exam surcharge by different timeslot, public holiday and out-of-office hours with different surcharge level.	High	M		
	Room Charge Overwrite	BILL-002	Able to change the default room charge due to special arrangement or clinical reasons.	High	M		
eHRSS Data upload	Investigation Reports	EHR-001	Upload endorsed endoscopy reports to eHRSS Portal.	Medium	M		
	Lab Reports	EHR-002	Upload endorsed lab reports to eHRSS Portal.	Medium	M		
	Data Materization	EHR-003	Data Materialization for both investigation and lab reports upload.	Medium	M		
Laboratory	Future Order	LAB-001	Able doctors/nurses to submit future lab exam order with scheduled date & time.	High	M		
Radiology	Radiology Request	RAD-001	Able to regroup the radiology exam by discipline so that exams will be easily located by users.	Medium	M		
	RIS Interface	RAD-002	RIS interface updates for doctor list, bill content and searching by accession id.	Medium	M		
PMS Enhancement	Vaccination	PMS-001	Batch vaccine for staff workflow which doesn't require to have a consultation with a doctor and allow to have quick medication administration workflow for a large volume vaccination request.	Medium	M		
	Vaccination	PMS-002	Allow to interface with MS form for online registration and allow to interface with online appointment request system to interface with HIS.	Medium	M		
Bed Board	Bed Board View	BED-001	Build up a bed board view to view the bed occupancy status for each ward.	Medium	M		
	Bed Assignment View	BED-002	Build up a view to show vacant bed for 1 to >7 days on different gender by bed type (e.g. 4-bed, 2-bed, 1-bed, …etc).	Medium	M		
	OT Assignment View	BED-003	Build up a view to show OT booking status for each operation theatre including day ward, day centre, and Operation Theatre.	Medium	M		
Outpatient	Integrated Medicine Clinic (IMC)	IMC-001	• Customize check-in page for IMC with NONG's • Customize visit History, Clinical History, PDF Reports to show NONG's record • Customize Letter & Cert for Chinese Medicine	Medium	M		
Consumable Enquiry	Consumable enquiry	CON-001	• Able to capture consumable used in clinic locations (e.g. ward/OT/centres).	Medium	M		
	Consumable Record	CON-002	• Capture the consumable.	Medium	M		
Integration	AIS integration for Anaecheck	INT-001	• Able to generate the drug charge via AnaeCheck System.	Medium	M		
Management Report	Executive Management Report	RPT-001	• Implement data extraction vs Extract Transform and Load (ETL) tool; • 6 reports for DH and 14 for executive management dashboard.	High	M		

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

_____   _____

Telephone: Email:

_____   _____

Authorized Signature: Date:

_____   _____

Modules	Requirement Code	Requirements	Mandatory (M) / Optional (O)	Compliance (Yes / No)	Solution details
General	GEN-001	Vendor shall describe the overall technical architecture of the proposed solutions in supporting the requirements specified in this section. Please use diagrams to illustrate where appropriate. Vendor shall also provide detailed descriptions on the system functionalities, hardware, software and system configurations for the proposed system.	M		
Application Architecture (APA)	APA-001	The proposed solution shall store individual patient information only once including but not limited to the patient demographic identification, appointments, drug and food allergies, and other aggregate patient information.	M		
	APA-002	The proposed solution shall ensure the accuracy in the patient identification and patient information that may affect the patient clinical, medication, billing, administrative and inter-departmental processes at CUHKMC.	M		
	APA-003	The proposed solution shall be able to uniquely identify the patient at the time to request the same patient health record from Hong Kong Electronic Health Record Sharing System (eHRSS) system.	M		
	APA-004	The proposed solution shall provide the functionalities by integrating the territory-wide eHRSS Clinical Management System (CMS) adaptation modules.	M		
	APA-005	The proposed solution shall conform to HIMSS standard at stage 6 or higher.	M		
	APA-006	The proposed solution shall adopt data standardisation based on Hong Kong Clinical Terminology Table (HKCTT) clinical terminology.	M		
	APA-007	The proposed solution shall be capable to automate the patient care workflow using the enterprise workflow engine solution.	M		
	APA-008	The proposed architecture shall provide flexibility to enable capacity expansion easily and cost-effectively as and when required to cater for future system enhancements. Expandability in a system design shall allow for easier functional enhancements as the needs of the business change and/or increase. The proposed system should be designed to be expandable and pave the way for future enhancement and expansion.	M		
	APA-009	The proposed solution shall make use of standards-based technologies and protocols, message format, and service-oriented architecture (SOA), where possible, to provide interoperability between the systems and future applications and infrastructure.	M		
	APA-010	The proposed architecture shall be scalable to anticipate loading growth and to meet future capabilities needs.	M		
	APA-011	Common shared services for SOA web services components and system libraries (e.g. encryption, logging, auditing, etc.) shall be leveraged to replicate common interfaces and functionality. The reusable services shall be designed in a manner so that the solution logic is independent of any particular business process or technology.	M		
	APA-012	The mobile ICT infrastructure shall provide the necessary mobile connectivity and security.	M		
	APA-013	The mobile app shall be built as either native app or web app and shall be managed through a Mobile Device Management (MDM) platform for deployment and security governance.	M		
	APA-014	The mobile app shall adopt an intuitive home screen design for better user experience. Icon-based homepage shall list all the available CUHKMC mobile applications, each representing different business functions. User shall be able to launch these individual mobile applications on the same mobile device from a single user interface.	M		
	APA-015	The web portal shall be developed using a 3-tier architecture – presentation tier, application tier, and the database tier.	M		
	APA-016	The web portal shall be hosted in-house at CUHKMC data centre or in the cloud. If hosted at the CUHKMC data centre, it shall follow the CUHKMC ICT Infrastructure Service and ICT Management Service framework in operation. If hosted in the cloud environment, a secure Virtual Private Network (VPN) connection shall be in place.	M		
	APA-017	All the application modules in the proposed solution shall communicate and interoperate among themselves, the medical devices, the ancillary modalities, the wearables, and the external parties through the Enterprise Service Bus (ESB).	M		
	APA-018	Open de-facto communication and information interoperation standards shall be used, where HL7 and DICOM standards are leading medical ICT standard that promote medical data interoperability. Both HL7 and DICOM interfaces shall be supported in the system integration. The combination of using SOA XML-based web services technology in the ESB shall further simplify the integration and interoperability of the proposed solution.	M		

Modules	Requirement Code	Requirements	Mandatory (M) / Optional (O)	Compliance (Yes / No)	Solution details
	APA-019	Data warehouse shall contain a wide variety of data combining from many different databases across the entire enterprise that presents a coherent picture of business conditions at a single point in time.	M		
	APA-020	The data from the source data stores shall be extracted, transformed, cleansed, and refined before loaded into the unified, star schema data warehouses.	M		
	APA-021	There are two different data warehouses – Clinical and Business. Both the clinical and business data warehouses shall represent the integrated view for CUHKMC and to maintain historical information from the clinical operation and business operation respectively.	M		
	APA-022	Online Analytical Processing (OLAP) cube data mart shall be built for advanced analysis capable of drill-through or drill-down analysis on the underlying dimensional data.	M		
	APA-023	The data in the data mart shall be populated from the data warehouse with summarisation, pre-calculation and derivations, and shall be accessed using a Business Intelligence (BI) reporting tool.	M		
Data Integration Architecture	DIA-001	The proposed architecture shall support data warehousing for aggregation of data in the data warehouses using continuous or near real-time loads.	M		
	DIA-002	The proposed architecture shall support data visualisation with collection of selective continuous or near real-time operational data for dashboard summarisation and BI reporting.	M		
	DIA-003	The clinical data repository holding the patient records, clinical information system databases, and all the operation and management databases for structured data shall be at high performance, protect against disk errors with Redundant Array of Independent Disks (RAID) data protection, secure, and scalable.	M		
	DIA-004	Information extraction techniques shall be used to extract structured data from unstructured text data during text analytics.	M		
	DIA-005	High data volume, high I/O speed, high-speed access and highly reliable with disk RAID protection shall be expected from the Picture Archiving and Communication System (PACS) for medical imaging contents.	M		
	DIA-006	The proposal architecture shall support Extract-Transform-Load (ETL) process in data warehousing to bring data from disparate sources and transform it before loading to the target destination.	M		
	DIA-007	Extracting data from the source systems and the transported data shall be converted into one consolidated data warehouse format in the staging area and be ready for transformation processing.	M		
	DIA-008	The successive transformations and loads shall be scheduled and processed in a specific order. The control of the progress as well as the ETL operations shall be managed by the ETL tools.	M		
	DIA-009	The proposed architecture shall support change data capturing by using the database replication technique.	M		
	DIA-010	The proposed architecture shall facilitate BI system to retrieve information out of the data warehouse and analytics data stores using the pre-built standardised report templates. The report templates shall be generated using the graphical BI tools with the capability to generate graphs, charts and visuals	M		
	DIA-011	The proposed architecture shall support advanced predictive analysis on the massive amount of health data to create insights leveraging both historical and real-time data from the patient population to predict trends for improving patient care. Both structured and un-structured data shall be supported.	M		
	DIA-012	The proposed architecture shall support medical imaging analysis by sifting through the PACS images to uncover useful information and biomedical markers providing cognitive insights.	M		
	DIA-013	The proposed architecture shall support dashboard to provide an integrated view of the hospital KPIs across multiple departments by capturing real-time data from any disparate sources using industry standards such as HL7.	M		
	DIA-014	The dashboard shall be secured with role-based authentication.	M		
	DIA-015	The proposed architecture shall support fast connection, real-time response and high input / output (I/O) performance to generate real-time alerts to KPI owner(s).	M		

Modules	Requirement Code	Requirements	Mandatory (M) / Optional (O)	Compliance (Yes / No)	Solution details
Information Architecture	INA-001	The proposed architecture shall respect to a common set of clinical coding and terminology used to represent the data in CUHKMC. The standard representing clinical concepts in Hong Kong – HKCTT developed by eHRSS shall be supported to assist CUHKMC to document patient's condition.	M		
	INA-002	The proposed architecture shall conform to a medical imaging data exchange standard. Digital Imaging and Communications in Medicine (DICOM) standard shall be supported to facilitate the distribution and viewing of radiology images. DICOM interfaces shall be available on for: • Image acquisition devices such as radiographic imaging, ultrasound, computed radiography, electrocardiography, etc. • Image archives • Image processing devices and image display workstations • Hard-copy output devices such as photographic transparency film and paper printers	M		
	INA-003	The proposed architecture shall conform to international messaging standards for clinical data transmission between various healthcare applications and systems. The Health Level Seven (HL7) Clinical Document Architecture (CDA) shall be supported to represent clinical notes such as physician's notes, imaging report, and discharge summaries, etc. for exchange. Both HL7 v2.x and v3 shall be supported to exchange clinical data between the ICT system solutions in CUHKMC.	M		
System Integration Platform	SIP-001	The proposed architecture shall decouple systems from each other and allowing them to communicate without knowledge of other systems on the bus by making use of message passing mechanisms.	M		
	SIP-002	The proposed architecture shall decouple the implementation of services from the protocols by providing cross-protocol messaging and transformation in a system-neutral format.	M		
	SIP-003	The proposed architecture shall use integration bus technology for business and information systems integration in CUHKMC. This integration bus technology is referred as the Enterprise Service Bus (ESB) which is built on the principles of Service-Oriented Architecture (SOA). The ESB shall: • Allow registration of service providers, so that it can route a service-consumption request from a service consumer to the appropriate service provider. • Provide a standard mechanism that lets service providers and service consumer's talk to one another through the service bus. • Allow other ESB to interconnect together. • Support wide range of protocols including MQ, JMS, HTTP/HTTPS, Web Services, SOAP, TCP/IP, FTP, MLLP, ODBC/JDBC and user-defined protocols. • Support a broad range of data formats including XML, HL7 v2, HL7 v3, DICOM, CDA, and user-defined formats. • Allow routing, filtering, transformation, and monitoring operations. • Be capable to route filtered messages from one sender application to many destination applications. • Be easy to extend with custom transformation logic. • Provide journaling support. • Provide checking and processing of duplicate messages. • Provide validation and parsing of messages. • Provide resending of messages. • Provide auditing of incoming messages. • Support sequencing options. • Provide notification on out of sequence messages. • Provide exceptions handling. • Be capable to receive messages from medical devices and transforming to HL7 and sending to the EMR application via HL7. • Be capable to set an expiry time so that aged device messages are discarded. • Support DICOM web service queries. • Provide board support for DICOM query models for flexible queries. • Be capable to convert DICOM objects to XML messages.	M		
	SIP-004	The proposed architecture shall support both SOAP and REST style web services.	M		
	SIP-005	The proposed architecture shall provide integration adapters to allow data to flow seamlessly between the health care applications and non-health care applications through the ESB. Message transformation to HL7, DICOM and other data formats shall take place internally.	M		

Modules	Requirement Code	Requirements	Mandatory (M) / Optional (O)	Compliance (Yes / No)	Solution details
	SIP-006	The proposed architecture shall support device adapters to integrate the point-of-care devices and patient care medical devices to the ESB. The device adapters shall accept the data from the devices to the Ethernet network and transform the incoming data format into HL7 messages and routed to the EMR and/or other applications for processing.	M		
	SIP-007	The proposed architecture shall facilitate the medical devices to be connected by a physical transport protocol such as serial RS-232, USB, Bluetooth, IP-based Ethernet, infrared, ZigBee, etc. to the protocol converter for data exchange. Devices that may be integrated include but are not limited to: • IV Pumps • Automated Blood Pressure Measurement Devices • Pulse Oximeters • Electrocardiograms (ECG) • Ventilators • Anesthesia Carts • Thermometers • Bed Sensors	M		
	SIP-008	The protocol converter shall provide a way to connect and interpret data from each device type and to associate the data from each device to the appropriate patient's EMR record through the ESB.	M		
	SIP-009	The device data shall be normalised in a standard format for sharing between the other devices.	M		
	SIP-010	The medical devices shall comply with CEN ISO/IEEE 11073 or IHE PCD standards to achieve medical devices and clinical systems interoperability.	M		
	SIP-011	The proposed architecture shall provide a secure connection to interface with Hong Kong's territory-wide eHRSS system to upload record to eHR and to view patient record from the eHR. The eHRSS interface should base on the CMS Adaptation modules provided by HKSAR's Food and Health Bureau.	M		
	SIP-012	The proposed architecture shall support custom interfaces using standard protocol to interface with external partners, such as Electronic Data Interchange (EDI) service provider.	M		
	SIP-013	The proposed architecture shall support Business Process Management (BPM) platform to integrate with the systems through ESB using standards compliant interfaces. XML-based Web Services Business Process Execution Language (WS-BPEL) shall be used to define the patient workflow care processes that manifest themselves as web services and shall interact with external entities through web service operations.	M		
	SIP-014	The BPM platform shall support Dynamic Case Management function to handle dynamic and flexible process change at runtime.	M		
	SIP-015	The following application integration standards shall be respected where applicable. - Simple functional integration in an open environment: SOAP v1.1 for remote service invocation, WSDL v1.1 for remote service description, UDDI v2 for the publication and discovery of remote service descriptions - Reliable message exchange between application systems in an open environment for business document-oriented collaboration: ebMS v2, AS4-Profile v1.0 of ebMS v3 - Portable virtual machine package, OVF v1.1.0 - Application interface for content management systems and repositories: CMIS v1.1	M		

Modules	Requirement Code	Requirements	Mandatory (M) / Optional (O)	Compliance (Yes / No)	Solution details
	SIP-016	The following infromation access and interchnge standards shall be respected where applicable. - Hypertext Web content: HTML and XHTML as implemented by commonly adopted versions of browsers - Client-side scripting: ECMA 262 Script Edition 5.1 - Mobile device Internet access: WAP v2.0 – for use with WAP devices, HTTP/1.1 – for use with mini-browser - Mobile Web content: WML 1.3 – for use with WAP devices, HTML and XHTML as implemented by commonly adopted browsers on mobile devices – for use with mini-browsers, XHTML Mobile Profile v1.1 – for use with mini-browsers on resource-constrained devices like mobile phones - Document file type for content publishing: HTML and XHTML as implemented by commonly adopted versions of browsers, PDF - Document file type for receiving documents: .txt, .rtf, HTML, PDF, .doc, .odt, .docx, .ppt, .odp, .pptx, .xls, .ods, .xlsx - Document file type for long term preservation: PDF/A-1a, PDF/A-1b - Formatted document file type for collaborative editing: .rtf, HTML and XHTML as implemented by commonly adopted versions of browsers, .doc, .docx, .odt - Presentation file type for collaborative editing: .ppt, .pptx, .odp - Spreadsheet file type for collaborative editing: .xls, .xlsx, .ods, Comma-Separated Values (CSV) text file - Graphical / Image file types: .jpg – for images that will tolerate information loss, .gif v89a – for images that will tolerate information loss with few colours and limited graduation between colours, .tif v6 – good for images that will not tolerate information loss, .png second edition – as an alternative to gif v89a offering greater compression and where control over transparency is required, epsf v3 – for images that require editing and/or which are included in PostScript printed output - Character sets and encoding for Web content: ISO/IEC 10646:2003 with Amendment 1 and HKSCS-2004, ISO/IEC 10646:2011 - Character sets and encoding for other types of information exchange: ASCII – for encoding content in English, ISO/IEC 10646:2003 with Amendment 1 and HKSCS-2004, ISO/IEC 10646:2011 - Compressed files: .zip, .gz v4.3, .7z, .rar - Removable storage media for receiving documents: CD-ROM in ISO 9660:1988 format, DVD-ROM in ISO/IEC 13346:1995 format, USB mass storage device in FAT format - Animation: Adobe Flash (.swf), Apple Quicktime (.qt, .mov, .avi), Adobe Shockwave (.swf) - Moving image and audio/visual: MPEG-1 (ISO 11172), .mp3 (ISO 11172), MPEG-4 (ISO 14496), Flash Video (FLV/F4V), Uncompressed wave format (.wav), Free Lossless Audio Codec (.flac) - Audio / video streaming: Real Audio / RealVideo (.ra, .ram, .rm, .rmm), Windows Media Formats (.asf, .wma, .wmv), Flash Video (FLV/F4V) - E-Business document / data message formatting language: XML, JavaScript Object Notation (JSON) - XML schema definition: XML Schema 1.0 – for data-oriented message, DTD as defined in the corresponding XML specification – for textual document-oriented applications - Content syndication: RSS 1.0 or RSS 2.0 - Typography for the Web: Web Open Font Format (WOFF) File Format 1.0 - Calendaring and scheduling information: iCalendar file format (.ics) - Physical or Digital object event creation and sharing: ISO/IEC 19987:2015 EPC Information Services (EPCIS) - Digital Map Format: GML v3.1.1 and v3.2.1, GeoTIFF Revision 1.0 Specification - Quick Response (QR) Code: ISO/IEC 18004:2015	M		
	SIP-017	The following interconnection standards shall be respected where applicable. - E-mail transport: SMTP (RFCs 5321, 5322), SMTP over TLS (RFC 3207) - E-mail format: MIME (RFCs 2045, 2046, 2047, 2048, 2049, 2231, 2387, 2392, 2557, 2646, 3023) - Mail box access: POP3 – for basic mail box access, IMAP4 rev1 – for more advanced functionality allowing clients to manipulate messages on the server - Hypertext transfer protocol: HTTP/1.1 - Directory access: LDAP v3 - Domain name service: DNS, IDN - File transfer: FTP, HTTP/1.1, SFTP - LAN / WAN interworking: IPv4, IPv6 - LAN / WAN transport protocol: TCP – preferred transport protocol over UDP, UDP – where required e.g. to support particular protocols - Wireless LAN: IEEE 802.11b, IEEE 802.11g, IEEE 802.11n, IEEE 802.11ac - Wireless LAN security: WPA, WPA2	M		

Modules	Requirement Code	Requirements	Mandatory (M) / Optional (O)	Compliance (Yes / No)	Solution details
Information Security Architecture	ISA-001	The proposed architecture shall provide comprehensive knowledge of vulnerabilities and attack and apply the knowledge through effective protection technologies.	M		
	ISA-002	The proposed architecture shall manage and extend identity context across the information security domains.	M		
	ISA-003	The proposed architecture shall secure data privacy and integrity of the trusted information assets.	M		
	ISA-004	The proposed architecture shall guard against cyber-attacks with insight into users, contents and applications.	M		
	ISA-005	The proposed architecture shall facilitate Identity and Access Management (IAM) services that are related to roles and identities, access rights, and entitlements to ensure access to resources is granted to the correct identities, at the correct time, and for the correct purpose. It shall also monitor and audit for unauthorised or unacceptable usages.	M		
	ISA-006	The proposed architecture shall facilitate Data Encryption, Encryption Key Management, Data Loss Prevention, Database Firewall, Data Security, and Destruction of Classified Information services that protect structured data, un-structured data and medical imaging content from unauthorised disclosure, modification, and loss, according to the nature and business value of information. It shall also provide usage and access monitoring and audit services.	M		
	ISA-007	The proposed architecture shall facilitate Auditing and Logging, Authentication and Authorisation, Exception Management, and Vulnerability Test services to ensure the end-to-end security of the ICT applications throughout the development lifecycle and help to prevent any data breaches.	M		
	ISA-008	The proposed architecture shall support Network Intrusion Prevention and Detection, End Point Protection and Anti-virus, Host Intrusion Protection, File Integrity Monitoring, Patch Management, and Mobile Device Management services to monitor the operation of the ICT infrastructure for threats and vulnerabilities to avoid or reduce breaches.	M		
	ISA-009	The proposed architecture shall support unified collection, aggregation, and analysis architecture for application logs, security events, vulnerability data, and identity and access management data. It shall also support Centralised Log Management, Security Intelligence, Threat and Vulnerability Management, and Security Information and Event Management (SIEM) services that can help determine and manage security incidents in deployed systems, collect security-related information from various internal and external sources, and determine the appropriate responses.	M		
	ISA-010	The following security domain standards shall be respected where applicable. - Secure exchange of messages in a Web Services environment: WS-Security 1.1 or WS-Security 1.1.1 - Attachment of digital signature to electronic documents: PKCS #7 v1.5 (RFC 2315), S/MIME v3, PDF v1.5, 1.6 or 1.7 (ISO 32000-1) - E-mail security: S/MIME v3, SPF (RFC 7208), DKIM (RFC 6376) - XML message encryption: XML Encryption - XML message signing: XML-Signature Syntax and Processing (RFC 3275), XML Signature Syntax and Processing v1.1 - IP network-level security: IPsec - Transport-level security: Transport Layer Security (TLS) protocol v1.1 or v1.2 - Symmetric encryption algorithms: 3DES, AES - Asymmetric encryption algorithms: RSA - Digital signature algorithms: DSA, RSA for Digital Signatures - Hashing algorithms for digital signature: SHA-1, SHA-256, SHA-384 and SHA-512 - Cryptographic message syntax for file-based signing and encrypting: PKCS #7 v1.5 (RFC 2315) - On-line certificate status protocol: Online Certificate Status Protocol (OCSP) (RFC 6960) - Certification request: PKCS #10 v1.7 (RFC 2986) - Certificate profile: RFC 5280 (X.509 v3) - Certificate revocation list profile: RFC 5280 (X.509 v2) - Certificate import / export interface: PKCS #12 v1.0 - Cryptographic token interface: PKCS #11 v2.11, Microsoft CryptoAPI/CNG - Cryptographic token information syntax: PKCS #15 v1.1 - Privacy policy: P3P v1.0 - Exchange of authentication and authorisation information: SAML v1.1 or v2.0, WS-Federation v1.2 - Time stamping protocol: RFC 3161 (X.509 PKI TSP) - Cyber threat information sharing standards: STIX v1.2.1, TAXII v1.1.1, TLP v1.0	M		

Modules	Requirement Code	Requirements	Mandatory (M) / Optional (O)	Compliance (Yes / No)	Solution details
	ISA-011	Personal data must be collected in a lawful and fair way, for a purpose directly related to a function /activity of the data user. Data subjects must be notified of the purpose and the classes of persons to whom the data may be transferred. Data collected should be necessary but not excessive.	M		
	ISA-012	Practicable steps shall be taken to ensure personal data is accurate and not kept longer than is necessary to fulfil the purpose for which it is used.	M		
	ISA-013	Personal data must be used for the purpose for which the data is collected or for a directly related purpose, unless voluntary and explicit consent with a new purpose is obtained from the data subject.	M		
	ISA-014	System needs to take practicable steps to safeguard personal data from unauthorised or accidental access, processing, erasure, loss or use.	M		
	ISA-015	System must take practicable steps to make personal data policies and practices known to the public regarding the types of personal data it holds and how the data is used.	M		
	ISA-016	A data subject must be given access to personal data and allowed to make corrections if it is inaccurate.	M		
Cloud Architecture	CLA-001	The deployment model of the cloud architecture of CUHKMC would be in Hybrid Cloud. The proposed architecture shall support "Cloud-ready" infrastructure which equips the essential capabilities of cloud computing, i.e. virtualisation, standardisation and automation, to provide resource pooling, measured service and rapid elasticity for the flexible and efficient ICT service delivery.	M		
	CLA-002	The proposed architecture shall host highly sensitive or classified data on premise.	M		
	CLA-003	The proposed architecture shall incorporate SOA web services perform data exchange between SaaS applications and the HIS.	M		
	CLA-004	The proposed architecture shall support secured network connectivity between the infrastructure of public cloud and private cloud for the data integration.	M		
	CLA-005	The proposed architecture shall adopt virtualisation technologies, such as compute and storage hypervisors.	M		
	CLA-006	The proposed architecture shall support IaaS delivery model on self-service provisioning and configuration of Virtual Machines (VMs) from a self-service catalogue, and shall meter the resources usage for simple reporting or for accounting and chargeback purposes.	M		
	CLA-007	The proposed architecture shall support system management with monitoring, event management, backup and restore, and security and patch management capabilities.	M		
	CLA-008	The proposed architecture shall support delivery of value-add services (such as network-as-a-service and storage-as-a-service), provisioning of complex services, advanced security and integration with public clouds.	M		
	CLA-009	The proposed architecture shall support service management which provides governance and discipline to integrate with the CUHKMC's enterprise service management systems.	M		
	CLA-010	The proposed architecture shall support remote system management for remotely running the centralised system management and ICT operation activities. Job Scheduling and the management of routine batch jobs or scripts shall also be covered.	M		
Technology Architecture and Infrastructure	TAI-001	The proposed architecture shall support overall system resilience and serviceability of ICT services by employing active-active data centre configuration.	M		
	TAI-002	The proposed architecture shall support three-tier architecture LAN, high speed intelligent network, wireless access and interactive location-based services.	M		
	TAI-003	The proposed architecture shall support WAN edge which adopts firewalls and IPS/IDS for specific security requirements. In addition, Data Leakage Prevention (DLP) measures shall also be in place.	M		
	TAI-004	The proposed architecture shall support remote connectivity using authenticated and encrypted access methods such as SSL and IP Security (IPsec) VPN.	M		
	TAI-005	The proposed architecture shall accommodate rapid increase of computation power resources needs for the CUHKMC business needs.	M		
	TAI-006	The proposed architecture shall support dynamic system resources reallocation among on-line request/ transaction and batch job.	M		
	TAI-007	The proposed architecture shall support application behaviour or recommendations to run or host on dedicated mode of server resources.	M		
	TAI-008	The proposed architecture shall support high speed and large bandwidth requirement of network infrastructure for the clinical system like PACS.	M		

Modules	Requirement Code	Requirements	Mandatory (M) / Optional (O)	Compliance (Yes / No)	Solution details
	TAI-009	The proposed architecture shall ensure performance and availability need of the HIS.	M		
	TAI-010	The proposed architecture shall adopt server virtualisation technology and cloud strategy.	M		
	TAI-011	The proposed architecture shall consider ICT resources horizontal and vertical scalability.	M		
	TAI-012	The proposed architecture shall consider information security on confidentiality, integrity, and availability.	M		
	TAI-013	The proposed architecture shall equip with high availability and/or active-active capability.	M		
	TAI-014	The proposed architecture shall support centralised management and control.	M		
	TAI-015	The proposed architecture shall support green environment and end-user affinity.	M		
	TAI-016	The proposed architecture shall support Windows plus Linux or UNIX platform virtual server farm.	M		
	TAI-017	The proposed architecture shall support dedicated UNIX and/ or x86 physical server farm.	M		
	TAI-018	The proposed architecture shall comparatively separate the production environment from the development or testing environment.	M		
	TAI-019	The proposed architecture shall support high availability function to perform live migrations of virtual server with zero downtime, and the failover function to move virtual servers between the primary and secondary data centres.	M		
	TAI-020	The proposed architecture shall consider storage resources consolidation with virtualisation technology.	M		
	TAI-021	The proposed architecture shall support centralised storage configuration in regardless of platforms.	M		
	TAI-022	The proposed architecture shall enhance data security on SAN and/or NAS storage fabric with access control list (ACL), zoning, logical unit number (LUN) masking, and host group configuration.	M		
	TAI-023	The proposed architecture shall provide physical data stores and retention of IT resources for entire storage infrastructure. It includes multi-tier storage servers (including disk controllers), legacy tape device(s), physical tape libraries and virtual tape libraries (VTL)/ disk libraries.	M		
	TAI-024	The proposed architecture shall support centralised storage server engines from various storage vendors and virtualisation of disks on physical storage.	M		
	TAI-025	The proposed architecture shall provide the flexibility to access storage through virtualised storage or directly connect to physical storage through SAN Fabric.	M		
	TAI-026	The proposed architecture shall support data replication or synchronisation across the storage between primary data centre and secondary data centre.	M		
IT Security	ITS-001	The system shall support and comply with all requirements described in "CUHKMC IT Security Requirements". Suppliers shall review the document thoroughly, and then fill out the "Security Requirements Compliance Table" near the end of the document accordingly for submission of proposal.	M		
	ITS-002	The proposed IT system must include the itemised breakdown cost of the overall IT and server hardware infrastructure and any necessary third-party server license, such as the server operating system, server, network equipment, database server and virtual machine license, if applicable, as optional hardware and software. CUHKMC reserves the right to acquire any hardware infrastructure equipment and proposed third-party licenses through our own deemed necessary.	M		

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

_____   _____

Telephone: Email:

_____   _____

Authorized Signature: Date:

_____   _____

Schedule 9 – Compliance to Service Level Agreement

We, the company named below, confirm all Goods/ Services on offer under this Invitation to Tender (please tick as appropriate):

☐   comply with Section 5 of Part IV (Service Level Agreement); or

☐   differ from the Service Level Agreement in the following areas: -

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

_____   _____

Telephone: Email:

_____   _____

Authorized Signature: Date:

_____   _____

Schedule 10 – Hardware

1. Mandatory Hardware

Item No.	Product No.	Product Name / Description

2. Optional Hardware

Item No.	Product No.	Product Name / Description

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

_____   _____

Telephone: Email:

_____   _____

Authorized Signature: Date:

_____   _____

Schedule 11 – Training

1. Mandatory Training

Course No.	Course Title	Duration (Days)	Location	Format#	No. of free seats

2. Optional Training

Course No.	Course Title	Duration (Days)	Location	Format#	No. of free seats

Examples of Format: Classroom, self-study, audio/visual, computer-assisted or others.

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

_____   _____

Telephone: Email:

_____   _____

Authorized Signature: Date:

_____   _____

Schedule 12 – Experience and Job Reference

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

_____   _____

Telephone: Email:

_____   _____

Authorized Signature: Date:

_____   _____

Schedule 13 - Services to be provided by CUHKMC

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

_____   _____

Telephone: Email:

_____   _____

Authorized Signature: Date:

_____   _____

Schedule 14 - Security Requirements Compliance Table

[Link to document](#)

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

_____   _____

Telephone: Email:

_____   _____

Authorized Signature: Date:

_____   _____

Schedule 15 - Consent to Disclosure

To: CUHK Medical Centre Limited (CUHKMC)

Re: Provision of Implementation Services for the Hospital Information System (HIS) and Integrations (Phase 4)

We, *[insert the name of the Tenderer]*, hereby irrevocably authorise, consent and agree that if CUHKMC agrees to engage us to carry out the Provision of Implementation Services for the Hospital Information System (HIS) and Integrations (Phase 4), CUHKMC may, whenever it considers appropriate or upon request by any person (written or otherwise) and without any further reference to us, disclose to any person in such form and manner as CUHKMC deems fit:

(a)   the fee proposal submitted by us on *[insert the relevant date]*; and

(b)   information of the Contract, such as our name and address, product description/brand/model/country of origin (if applicable), description of the relevant services (if applicable) and the value of the Contract.

We hereby waive and forego our right, if any, to make any claims against CUHKMC for any losses, damages, costs, charges, liabilities, demands, proceedings and actions that may arise out of or in consequence of such disclosure by CUHKMC.

Dated this   day of

SIGNED by *[insert the name(s) of the signator(ies)]*,   )
the *[insert the post(s) of the signator(ies)]* of the   )
[insert the name of the company]   )
in the presence of : -

Signature of Witness
Name of Witness:
Occupation:
Address:

Schedule 16 - Non-Collusion Certificate

We certify that this is a bona fide tender, and that we have not fixed or adjusted the amount of the Tender by or under or in accordance with any agreement or arrangements with any other person. We also certify that we have not done and we undertake that we will not do at any time before the hour and date specified for the return of this Tender any of the following acts:

(a) Communicate to any person other than the person calling for those Tenders the amount or approximate amount of the proposed Tender, except where the disclosure, in confidence, of the approximate amount of the Tender was necessary to obtain insurance premium quotations required for the preparation of the Tender;

(b) Enter into agreement or arrangements with any other person that he shall refrain from tendering or as to the amount of any Tender to be submitted;

(c) Offer or pay or give or agree to pay or give any sum of money or valuable consideration directly or indirectly to any person for doing or having done in relation to any other tender or proposed Tender any act or thing of the sort described above.

In this certificate, the word "person" includes any person and any body or association, corporation or unincorporated, and "any agreement or arrangement" includes any such transaction, formal or informal, and whether legally binding or not.

We expressly acknowledge and agree that, without prejudice to any other rights of CUHKMC, if this certification is in anyway incorrect, or becomes incorrect prior to the award of this Tender, CUHKMC may:

(i) disqualify our Tender from consideration;
(ii) withdraw any confirmation of award of tender already made, without penalty or liability;
(iii) disqualify us, our holding company and subsidiaries from participation in any future tenders issued by CUHKMC for such period as CUHKMC may in its entire discretion consider appropriate;
(iv) take such other actions, including reporting us to the government or regulatory authorities in Hong Kong or elsewhere, as CUHKMC considers appropriate.

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

_____ _____

Telephone: Email:

_____ _____

Authorized Signature: Date:

_____ _____

Schedule 17 - Personal Data (Privacy) (Amendment) Ordinance

The new provisions on data processors under the Amendment Ordinance had come into effect on 1 October 2012 and as such, I/we certify the following:

a. I shall/We will and shall/will procure my/our employees, agents or representatives to comply with the provisions of the Personal Data (Privacy) Ordinance (the "Ordinance") (including any amendments thereon from time to time), and any applicable codes of practice, guidance notes or regulations in the handling of personal data (as defined in the Ordinance from time to time) ("Personal Data") collected by and provided to me/us for the purpose of this Tender/Agreement.

b. I/We shall not keep Personal Data longer than is necessary for the fulfilment of the purpose (including any directly related purpose) for which the same are or to be used. I shall/we will:

    i.   return, destroy or permanently erase all such Personal Data;
    ii. destroy or permanently erase all copies of such Personal Data made by me/us; and
    iii. use all reasonable endeavors to ensure that anyone who has received any such Personal Data destroys or permanently erases such Personal Data and any copies made by it or him,

    in each case, save to the extent that I am/we or the recipients are required to retain any such Personal Data by any applicable law, rule or regulation or by any competent judicial, governmental, supervisory or regulatory body.

c. I shall/We will take all practical steps and have in place and maintain appropriate security measures to prevent unauthorized or accidental access, processing erasure, loss or use of Personal Data collected by or transferred to it having particular regard to:

    i.   the kind of Personal Data and the harm that could result if any of those things should occur;
    ii. the physical location where the Personal Data are stored;
    iii. any security measures incorporated (whether by automated means or otherwise) into any Goods in which the Personal Data are stored;
    iv. any measures taken for ensuring the integrity, prudence and competence of persons having access to Personal Data; and
    v.   any measures taken for ensuring the secure transmission of Personal Data.

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

_____   _____

Telephone: Email:

_____   _____

Authorized Signature: Date:

_____   _____

Schedule 18 – Price

Notes:
(a) Enter 'N/C' (i.e. No Charge) where applicable.
(b) Unless otherwise specified elsewhere in this Contract, all periodic payments due shall be paid in arrears.
(c) All purchase prices for software, custom programs and hardware shall include at least 12 months free-of-charge maintenance service after the date of acceptance. Tenderer shall state the length of free-of-charge maintenance service if it is more than 12 months.

1. Software

a. Mandatory Software

Item No.	Product No.	Purchase Price			Post Warranty Maintenance Service Cost Per Unit Per Annum (HK$)				
		Unit Price (HK$)	Quantity	Total Price (HK$)	1st year	2nd year	3rd year	4th year	5th year
					Free Warranty Period				

b. Optional Software

Item No.	Product No.	Purchase Price			Post Warranty Maintenance Service Cost Per Unit Per Annum (HK$)				
		Unit Price (HK$)	Quantity	Total Price (HK$)	1st year	2nd year	3rd year	4th year	5th year
					Free Warranty Period				

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

_____   _____

Telephone: Email:

_____   _____

Authorized Signature: Date:

_____   _____

Schedule 18 – Price (Continued)

2. Custom Programs

   a. Mandatory Custom Programs

Item No.	Product No.	Purchase Price			Post Warranty Maintenance Service Cost Per Unit Per Annum (HK$)				
		Unit Price (HK$)	Quantity	Total Price (HK$)	1st year	2nd year	3rd year	4th year	5th year
					Free Warranty Period				

   b. Option Custom Programs

Item No.	Product No.	Purchase Price			Post Warranty Maintenance Service Cost Per Unit Per Annum (HK$)				
		Unit Price (HK$)	Quantity	Total Price (HK$)	1st year	2nd year	3rd year	4th year	5th year
					Free Warranty Period				

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

_____   _____

Telephone: Email:

_____   _____

Authorized Signature: Date:

_____   _____

Schedule 17 – Price (Continued)

3. Hardware

   a. Mandatory Hardware

Item No.	Product No.	Purchase Price			Post Warranty Maintenance Service Cost Per Unit Per Annum (HK$)				
		Unit Price (HK$)	Quantity	Total Price (HK$)	1st year	2nd year	3rd year	4th year	5th year
					Free Warranty Period				

   b. Optional Hardware

Item No.	Product No.	Purchase Price			Post Warranty Maintenance Service Cost Per Unit Per Annum (HK$)				
		Unit Price (HK$)	Quantity	Total Price (HK$)	1st year	2nd year	3rd year	4th year	5th year
					Free Warranty Period				

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

_____   _____

Telephone: Email:

_____   _____

Authorized Signature: Date:

_____   _____

4. Training

   a. Mandatory Training

Course No.	Course Title	No. of Free Seats	Fees per Additional Seat (HK$)

   b. Optional Training

Course No.	Course Title	No. of Free Seats	Fees per Additional Seat (HK$)

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

_____   _____

Telephone: Email:

_____   _____

Authorized Signature: Date:

_____   _____

Schedule 17 – Price (Continued)

5. Services (Implementation, Installation, Configuration, Consultancy, etc.) and other costs

Items	One-off Cost (HK$)	Annual Cost (HK$)				
		1st year	2nd year	3rd year	4th year	5th year
		Free Warranty Period				

6. **Total Tendered Sum – Mandatory Items**

Item	Description	Price (HK$)
1.	Software	
2.	Custom Programs	
3.	Hardware	
4.	Training	
5.	Services and other costs	
	Total Amount (HK$):	

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

_____   _____

Telephone: Email:

_____   _____

Authorized Signature: Date:

_____   _____