

### Second Stage Electronic Health Record Engagement Initiative (2<sup>nd</sup> Stage EEI)

# Invitation for eHR Partnership - Information Technology (IT) Sector

eHealth Record Office Food and Health Bureau

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### Content

I.	Electronic Health Record Engagement Initiative (EEI)	3
II.	Territory-wide eHR Sharing System	6
III.	Invitation for Proposals on eHR Partnership	13
IV.	Evaluation Mechanism	20
V.	Other Information	22
VI.	Submission of Proposal	25
VII.	Briefing and Enquiry	26
VIII.	Further Steps	27
Annex A	<b>A</b>	28
Annex I	B	33
Annex (	C	34
AnnovI	n.	36

#### I. Electronic Health Record Engagement Initiative (EEI)

#### Purpose of EEI

- 1. The purpose of the EEI invitation exercise is to invite expression of interest with proposals for Electronic Health Record<sup>1</sup> (eHR) partnerships. The partnership proposals will include pilot projects and interface projects that would facilitate the deployment of electronic medical/patient record (eMR/ePR) systems in the private sector and contribute to the development of the eHR sharing system.
- 2. The engagement and participation of all stakeholders in the private and non-governmental sectors will be essential to building up a territory-wide patient-oriented eHR sharing system. Given the importance, the eHR Office of the Food and Health Bureau (FHB) launches the EEI invitation exercise to invite private healthcare and IT sectors to submit proposals on their engagement in the development of the eHR sharing system. The objectives of the EEI exercise are listed below.
  - (a) To invite eHR partnership proposals from potential partners in the healthcare and IT sectors.
  - (b) To provide an opportunity to promote and update the stakeholders with the latest development of eHR programme.
  - (c) To gain feedback from healthcare sector stakeholders in what ways eHR would assist their care of patients, facilitate continuity of care and enhance safety and quality.
  - (d) To gain a more in-depth appreciation of current and future development plans for eMR/ePR systems in the private and non-governmental sectors.
  - (e) To share ideas that can promote interoperability of eMR/ePR systems and seamlessness in eHR sharing.
- 3. Specifically, the eHR sharing system will require the deployment of eMR/ePR systems by private healthcare providers with capabilities of sharing eHR of individual patients based on commonly adopted standards, and an electronic platform in a secure, identifiable and intelligible manner. The Government will engage the IT sector to encourage their participation in the development of innovative technical

3

<sup>&</sup>lt;sup>1</sup> Electronic health record is a record in electronic format containing an individual's health-related data stored and retrieved by different healthcare providers for health-related purposes. It encompasses general personal particulars, personal health-related information as well as medical records from different sources and locations.

solutions to meet the challenges of interoperability and invite them to submit partnership proposals in the development of eHR sharing system.

4. The proposals to be submitted can make use of the public sector expertise and resources available through the Government. The ultimate purposes are to facilitate the development of eMR/ePR systems in the private sector, adapt existing systems to comply with standardisation, and interface with the core eHR sharing infrastructure.

#### First Stage EEI

- 5. The eHR Office launched the first stage of EEI invitation in October 2009 and invited partnership proposals contributing to the development of the eHR sharing system from the private healthcare sector. The EEI is the first step taken by the eHR Office to engage different healthcare providers in the early development of the eHR sharing system.
- 6. Submission of final proposals for the first stage EEI was closed in February 2010. Over 50 EEI proposals were received from various healthcare stakeholders, including private hospitals, group practices, healthcare professional bodies, non-governmental organisations in relation to healthcare, Chinese medicine and laboratory services providers, etc. These indicated the willingness and readiness of the healthcare sector to participate in eHR sharing.
- 7. EEI engagement plans have been formulated to take forward the recommended partnership proposals, in view of the individual project implementation timeframe and alignment with the overall schedule of eHR development programme. Government support for various forms of EEI engagement is set out below
  - CMS Adaptation: Basic modules of Hospital Authority (HA) Clinical Management System (CMS) Adaptation will be deployed to meet private stakeholders' clinical requirements.
  - CMS On-ramp: Open source clinic management software (CMS On-ramp) will be made available as a turn-key system readily usable by private practitioners with minimal investment and maintenance.
  - eHR Pilot Projects: eHR pilot projects such as public-private interface electronic patient record (PPI-ePR) sharing pilot project, radiological image
    sharing pilot project, etc. will be extended to private healthcare providers.
  - eHR Technology Know-how: eHR technology in possession by the Government or HA will be made available to EEI proponents for their upgrade or development of their own health information systems.

- Financial Sponsorship: Provision of financial sponsorship will be considered for non-profit-making professional bodies to make eHR solutions available through open source and in a not-for-profit manner.
- 8. Taking into account the partnership projects and development needs raised by private healthcare stakeholders during the first stage EEI, the eHR Office will engage IT professional bodies and private IT vendors in the second stage EEI to further explore proposals contributing to eHR development.

#### II. Territory-wide eHR Sharing System

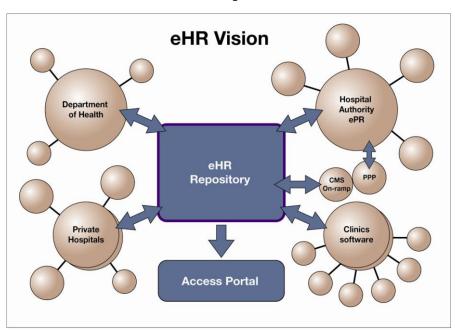
#### The eHR Vision

- 9. The Government's long-term vision is to develop a territory-wide information system for healthcare professionals in both public and private sectors to enter, store and retrieve patients' medical records, to realise the concept "records follow patients". Under the system, patient participation will be on a voluntary basis and sharing of patients' health records is subject to patients' express and informed consent as well as proper authorisation of access to the system.
- 10. Private healthcare providers will be allowed to choose and adopt individual health information systems that best suit their clinical requirements. Only health data falling within the pre-defined scope of eHR would be sharable through the eHR platform based on eHR standards to safeguard data privacy and security. The eHR sharing system does not imply that all data in individual eMR system would be automatically shared among healthcare providers, for example billing information will not be captured. Healthcare providers may also choose to participate in the eHR sharing system, or not to participate on a voluntary basis.
- 11. We have a digital vision to build a healthcare IT infrastructure that will link together all stakeholders in Hong Kong viz. the Government, the public healthcare sector (including both HA and the Department of Health), the private healthcare sector, the IT sector and ultimately all the citizens of Hong Kong. The ultimate goal is to provide a seamless set of personal health data that will follow the patient throughout his or her life.



**Digital eHR Vision** 

- 12. There are several fundamental principles in the building of the eHR sharing system
  - (a) The electronic platform will be patient-focused and access will be patient-controlled.
  - (b) The eHR will be operated by the Government on behalf of the citizens and healthcare providers.
  - (c) Protection of patient privacy is of paramount importance, and sufficient safeguards must be designed and built, whether these be legal, technical or procedural.
  - (d) The eHR will be built using a "hub and spoke" model, wherein healthcare providers continue to own and operate their own electronic medical records systems, but their eMR systems will contribute a defined set of data to the eHR.



'Hub and Spoke' Model

13. We recognise that achieving this vision will need ongoing consensus building and sufficient engagement with all stakeholders, and involve a phased approach over a number of years. The first phase of eHR development will focus on building the shared records repository, the interfaces to the health information systems deployed by individual healthcare providers and the access portal for healthcare providers. In the second phase a patient portal will be built allowing for the development of citizen-focused health applications.

- 14. The eHR sharing system provides an essential infrastructure for implementing the healthcare reform in the following ways
  - Enable patient-centred healthcare: eHR sharing system allows timely sharing of essential and comprehensive medical information of patients. It provides a vital infrastructure for facilitating a seamless healthcare process under which different healthcare providers provide collaborative care centred around the individuals and their health and well-being, which is a key objective of the healthcare reform.
  - Enhance primary care: eHR sharing system builds up lifelong records for individuals contributed and accessible by different healthcare providers. It provides an essential tool for comprehensive, lifelong and holistic primary care for individuals, helps promote the family doctor concept and continuity of care, and enables patients to take greater ownership and control of their health record, and in turn their health.
  - Facilitate hospital-primary care interface and public-private partnership: eHR sharing system connects hospitals and primary care practitioners, and the public and private healthcare sectors. It facilitates better collaboration and interface between different healthcare providers and between different levels of care, and enables patients to receive public and private services at different times without worrying about the transfer of their medical records.

#### Latest eHR Development

15. The development of eHR sharing system is a ten-year programme which will be delivered in two distinct stages. In July 2009, the Finance Committee of the Legislative Council approved a new commitment of \$702 million for implementing the first stage of the eHR Development Programme from 2009-10 to 2013-14. The objectives of the first stage of the eHR Development Programme are: (a) to have the eHR sharing platform ready by 2013-14 for connection with public and private hospitals; (b) to have eMR/ePR systems and other health information systems in the market for private doctors, clinics and other healthcare providers to connect to the eHR sharing platform; and (c) to formulate a legal framework for the eHR sharing system to protect data privacy and security prior to commissioning of the system.

16. The second stage of the eHR Development Programme aims to expand the coverage of the eHR sharing system among healthcare providers and the public, and to further extend its functionalities in supporting healthcare purposes. The pace, scope and funding to be required for the second stage will depend on various factors including, inter alia, the progress with the first stage, participation rate and needs of both healthcare providers and the public as well as evolving features in IT.

#### eHR Sharing Infrastructure

- 17. The blueprint for the core infrastructure, which proposes an overall eHR architectural design to support a standard-based, robust and secured central platform, is formulated. The eHR core sharing infrastructure (eHR Core) is to design and build the core eHR sharing platform for interconnecting between individual eMR/ePR systems adopted by individual healthcare providers. The platform, with systems for patient and healthcare provider identification and the authentication model for access, will provide eHR data sharing functions such as access, retrieval, storage, and exchange of data. The system will be based on common standards to be developed by the public and private sectors in collaboration.
- 18. The eHR Core is architected around a centralised eHR Sharable Data Store, which is the hub for storage and distribution, with five infrastructural components through three layers of data access. The architectural design of the eHR Core follows the principles
  - Building-block Approach: Follow a building-block approach to mitigate the risks of evolving user requirements and expedite realisation of benefits through deployment of small blocks of functionalities.
  - Service Oriented Architecture: Adopt a Service Oriented Architecture (SOA) to ensure reusability and extensibility of each developed module.
  - Building Security in: Design the system by "building security in" to protect data security and patient privacy.
  - Built-in Sustainability: Built-in sustainability of the clinical data beyond people and system life-span to ensure longitudinal access of individual patients' health records.
  - High Level System Serviceability: Construct for a high level of system serviceability to ensure capability to support the 7 days x 24 hours (7x24) healthcare environment with a targeted average service availability level of 99.9%.

19. We will establish a central data store of the sharable data. All incoming data to the central data store will be transformed, restructured, standardised and re-formatted before storage to facilitate usage by the eHR sharing system.

#### CMS Adaptation and CMS On-ramp

- 20. The blueprint for the HA CMS extension components is also formulated. The CMS extension components facilitate the adoption and deployment of HA's CMS by private healthcare providers, especially private hospitals and clinics which would like to adopt HA CMS components for their own use with minimal investment and maintenance.
- 21. There are two key elements for the CMS extension components. Leveraging on HA CMS, CMS Adaptation modules will be developed to enable data sharing and integration capabilities by private hospitals or institutions. The CMS Adaptation modules may include patient registration; appointment; allergy and alert input; drug inventory and dispensing; order management and vetting; medication order entry; diagnosis and procedure coding; generic clinical request and documentation; discharge summary; medical and attendance certificate; advanced medication order entry and decision support; hospital-based ePR, etc. The modules will be developed and released using a building-block approach. Private hospitals or institutions can adopt the modules by integrating them into their own eMR systems.
- 22. CMS On-ramp is an open source and open standard clinic management system with the ability to share the clinical data of patients with the future eHR sharing system. It will be made available to provide low investment cost access for private solo or group practice providers to the future eHR sharing system.
- 23. These extension components will be implemented predominantly through private participation, e.g. adapted and extended components and technologies of HA's CMS may be licensed to private healthcare providers and/or IT vendors for their adoption. The strategy of the development, sourcing and hosting of the CMS Adaptation modules for private hospitals and CMS On-ramp applications for private practitioners have also been formulated. These modules and applications will be provided to the private healthcare sector for free or at minimal cost for their adoption. The cost of implementation and hosting of the CMS Adaptation and CMS On-ramp will be borne by private healthcare providers.

#### eHR Standardisation and Interface

- 24. The objectives of standardisation and interfacing component are as follows.
  - To develop technical standards for different health information systems to

interoperate and interconnect through the eHR sharing infrastructure.

- To advance a compliance verification platform for testing interoperability that could support a future compliance scheme for individual eMR/ePR systems of healthcare or IT service providers.
- To provide technical support for private healthcare providers which already have their own eMR/ePR systems and would like to connect to eHR.
- To provide the necessary interface to facilitate such interconnection.
- 25. The eHR sharable data is the defined set of health data that are significant for patient care and necessary for sharing among healthcare providers. It represents only part of the patient data stored by healthcare providers. Each healthcare provider will continue to build and maintain its own data repository and is required to contribute only the defined sharable data to the eHR Sharable Data Store.
- 26. Terminology is an integral part of health record documentation. As there are many terminology standards, a Hong Kong Clinical Terminology Table will be built to support the development of eHR by integrating the international terminologies.
- 27. Other eHR standards, including eHR Content Standards Guidebook and the Data Interoperability Standards, were published to stakeholders and the public on the eHR Office website at <a href="http://www.ehealth.gov.hk/en/index4.html">http://www.ehealth.gov.hk/en/index4.html</a>.

#### Pilot Partnership Projects for eHR Sharing

- 28. Up to now, HA has accumulated electronic medical records of over eight million patients which could be shared among over 40 HA hospitals and 120 HA clinics. To test the feasibility and acceptability of eHR sharing, the Government and the HA have launched a series of eHR pilot and partnership projects since April 2006 to facilitate better collaboration and interface on sharing of medical records between the public and private healthcare sectors. Details of the pilot projects are summarised at *Annex A*. The pilot projects have expanded the sharing of HA's records to different healthcare settings and with a wider scope.
- 29. The pilot projects proved the feasibility and acceptability of eHR sharing amongst healthcare providers and patients in general. These pilot projects launched so far are well received by all parties concerned. Participating doctors and patients are very positive about the projects. They also strongly supported the sharing of patient records and considered that it would help improve the quality of healthcare and enable private doctors to provide more suitable services to patients.

30. These pilots also provided valuable experience and insights into the challenges of implementing the eHR sharing system on a territory-wide and population-wide basis. The pilots and their future evolution will form essential building blocks for the future eHR sharing infrastructure. The existing pilot projects that have already been initiated and funded by the Government will be subsumed under the eHR development framework.

#### III. Invitation for Proposals on eHR Partnership

#### Role of IT Sector in eHR Development

- 31. Since 1995, HA has progressively developed its CMS for storing and retrieving patients' medical records. The CMS has already gone through its Phases I and II development and is currently being upgraded to CMS III. The upgrade will enable modules of HA CMS to be extended and adapted for application in the private sector.
- 32. Given that the CMS is the largest scale of integrated local eMR/ePR system, it will be one of the main pillars to the eHR sharing infrastructure. To ensure cost effectiveness in the development of the eHR sharing infrastructure, to facilitate development and deployment of eMR/ePR systems by private healthcare providers, and to enable the interconnection of individual eMR/ePR systems with the eHR sharing infrastructure, the HA's expertise and know-how in the development of CMS is a crucial asset to be leveraged upon.
- 33. In line with its functions, HA will serve as the technical agency for the Government on eHR development. Nevertheless, part of the services, apart from hardware and supplies, will be sourced from the private sector providing business opportunities for the private sector particularly small and medium enterprises wherever feasible. The eHR Development Programme will also create opportunities for the private sector to develop eHR-compatible systems for private hospitals and clinics. The programme will facilitate this by promulgating open standards for eHR compatibility, by providing technical assistance to private contractors, by certifying privately-developed software for eHR compatibility, and by licensing software modules for re-use in private sector implementations.

#### eHR Sharing Infrastructure

- 34. The eHR Core will leverage on HA's existing information model, standardised clinical terminology, information architecture management framework and ePR system with in-house adaptation to meet the needs of eHR projects. Other eHR Core modules will be developed to integrate seamlessly with the existing modules.
- 35. The private sector will have business opportunities in providing integration tools for eHR infrastructure platform, consultancy services for the design of security and audit framework, tools to support development of core modules, and ideas on the feasibility of future system compliance verification and registration work, and views on the development and implementation of a secured interface gateway to enable standardised and secured data interchange between the eHR Core and individual eMR

systems, etc.

#### CMS Adaptation and CMS On-ramp

- 36. To leverage on existing HA CMS and ensure good alignment with the eHR Core, the early development of CMS Adaptation will mainly be handled in-house. Implementation and hosting of adaptation modules will be arranged and conducted by the IT service sector through the 'eHR Compliant Service Provider (CSP)' scheme.
- 37. For private hospitals or institutions with their own ePR systems, private healthcare providers and IT vendors will need to develop adaptors to convert data from existing formats to the standardised formats in order to connect to the eHR Core.
- 38. For CMS On-ramp, while the eHR adaptors and security settings will be provided by HA, the eHR CSPs will help deploy the adaptors and provide system implementation and hosting services.

#### Forms of Partnerships

39. IT professional bodies and private IT vendors are invited to submit partnership proposals contributing to their engagement in the development of the eHR sharing system. The partnership projects submitted may fall within, but not be confined to, the following categories –

#### Partnership Projects

- (a) Upgrade or Develop Third Party Clinic Management System with eHR sharing capability.
- (b) Upgrade systems of private hospitals or private radiology centres for Radiological Image Sharing.
- (c) Deploy CMS Extension Systems, including CMS Adaptation and CMS On-ramp, through the 'eHR CSP' scheme.

#### Financial Sponsorship Projects

- (d) Connect Third Party Clinic Management System with development of eHR adaptors/integration hub.
- (e) Develop value-added functions for Open Source CMS On-ramp.

#### Request for Information

- (f) Request for Information on technical issues.
- 40. The forms of partnerships with the IT sector, which are by no means exhaustive, are set out in the ensuing paragraphs.

#### Partnership Projects

### (a) Upgrade or Develop Third Party Clinic Management System with eHR sharing capability

Partnerships may include IT professional bodies and private IT vendors interested in supporting the upgrading of private healthcare stakeholders' self-developed clinic management system with eHR sharing capability, or developing suitable clinical systems for sale in the market. IT vendors may shoulder the development costs for developing third party clinic management system and sell the clinic management system to private healthcare providers at market price.

The Government will make available eHR standards and provide technology know-how, including the latest eHR standards, security and technical requirements, interoperability framework at the eHR Office website and through other appropriate channels. This will enable the IT industry with the required eHR capabilities. Regular briefings and technical trainings on eHR standards and interfacing requirements would also be organised as and when necessary.

### (b) Upgrade systems of private hospitals or private radiology centres for Radiological Image Sharing

Launched in January 2009, the Radiological Image Sharing Pilot allows participating private healthcare providers with the patient's consent to send radiological images of enrolled patients to HA via electronic means. To participate in the pilot, the private healthcare providers need to undergo a technical alignment process which includes the building of interface gateway, installation of suitable systems for storing and sending images (e.g. Digital Imaging and Communications in Medicine, Picture Archiving and Communication System, etc.), integration and image testing, etc.

The Government plans to further extend the pilot to other interested healthcare providers. Partnerships may include providing technical advice to IT professional bodies and private IT vendors interested in supporting the private healthcare providers during the technical alignment process. The Government will promulgate eHR messaging and communication standards for radiological image sharing, network and security architecture and interoperability framework through appropriate channels. Briefings and technical trainings on eHR standards and interface requirements would also be organised as and when necessary.

#### (c) Deploy CMS Extension Systems through the 'eHR CSP' scheme

#### <u>Deploy CMS On-ramp through the 'eHR CSP' scheme</u>

Partnership may involve provision of implementation service for CMS On-ramp by interested IT vendors. The Government will establish an 'eHR CSP' scheme for implementation and hosting of CMS On-ramp and provide advice to the eHR CSPs on deployment of CMS On-ramp, eHR adaptors and security settings.

Whilst the eHR CSPs will be responsible for system implementation, hosting, user training, and post implementation support services, the Government will provide technical guidelines on software upgrade and "train-the-trainers" sessions as and when necessary. Healthcare providers may acquire services from eHR CSPs to assist in their implementation of the system or other eHR related business.

#### Deploy CMS Adaptation modules through the 'eHR CSP' scheme

In accordance with the engagement plan for the first stage EEI, the Government will engage interested private hospitals and group practices in the adoption of CMS Adaptation modules.

Data from hospital-based ePR modules will provide clinical data in a standardised format to the eHR Information Hub, which is both an information repository and interface gateway with the eHR Core. The CMS Adaptation modules will interface with the hospital ePR module directly. Private hospitals or their corresponding system owners will therefore need to develop appropriate adaptors to connect hospital ePR systems with the eHR platform.

Private IT vendors interested in deploying CMS Adaptation modules may participate in the eHR CSP scheme to provide integration and adaptation services for private hospitals and group practices.

The Government will establish an 'eHR CSP' scheme for implementation and hosting of CMS Adaptation modules, define the standards and protocols for adaptors development, compile documentation and guidelines on deployment of CMS Adaptation. To foster the development of eHR CSPs in the IT service sector, the Government will release the CMS Adaptation modules as deployable packages, with appropriate documentation and training support in "train-the-trainer" approach to the eHR CSPs.

The details of the 'eHR CSP' scheme are at *Annex B*.

#### Financial Sponsorship Projects

### (d) Connect Third Party Clinic Management System with development of eHR adaptors/integration hub

The partnership model may include, for instance, development of eHR adaptors/integration hub to connect third party clinic management systems with the eHR core infrastructure. Provision of financial sponsorship may be considered for non-profit-making IT professional bodies if the proposals could make substantive contributions towards eHR sharing e.g. proposals with significant delivery targets of healthcare service providers adopting the eHR adaptors/integration hub. Since the third party clinic management systems may be proprietary, the scope of financial sponsorship would be confined to the eHR adaptors/integration hub only, which should be built in an open source and not-for-profit manner.

#### (e) Develop value-added functions for Open Source CMS On-ramp

The Government will make available open source CMS On-ramp application to provide healthcare providers in local private clinics environment with ability to share patients' clinical data with the future eHR sharing system.

The CMS On-ramp application will provide basic functionality, while the IT sector may develop value-added functions, e.g. advanced billing and accounting, drug control, pharmacy ordering, etc. to meet the specified requirements of healthcare service providers.

Financial sponsorship may be considered for non-profit-making IT professional bodies if the add-on functions are provided in open source and not-for-profit manner for use by the local healthcare sector. The business opportunity for IT vendor to provide valued-added services for the enhanced CMS On-ramp in market will depend on implementation services, e.g. installation, data migration, training, technical support, etc. to be provided to the healthcare providers.

#### Request for Information

#### (f) Request for Information (RFI) on technical issues

New ideas and solutions are invited to address technical issues related to core infrastructure, legal, privacy and security aspects. The issues may include compliance scheme for eHR products, secured interface gateway, development of image browser and integrated archive for radiological image sharing, etc. The details of potential RFI areas are listed at *Annex C*.

The Government is not committed to accept any of the ideas. But if the Government decides to pursue any proposals, it would need to go through the established procurement procedures.

41. The scope and parameters for areas of collaboration on eHR partnerships are listed at *Annex D*.

#### Government Support

- 42. Partnership proposals must be conducive to the objectives of EEI, i.e. facilitate the development and deployment of eMR/ePR systems and contribute to eHR sharing in the private sector. Projects which are outside the scope of EEI, e.g. consultancy review on eHR architecture, development tools for infrastructure platform, data centre hosting and operation etc., may be considered by the Government separately, applying established procurement procedures where appropriate.
- 43. EEI proposals must contribute towards building the territory-wide eHR sharing infrastructure, promote interoperability of various eHR systems and encourage eHR sharing through knowledge transfer and exchange, as well as experience sharing among stakeholders. Suggestion of innovative solutions would be judged against its capabilities in achieving the eHR objectives.
- 44. The Government will provide capital funding for the eHR core components falling within the eHR sharing infrastructure and fund its recurrent operation and maintenance. To facilitate investment in and development of eHR-sharing-ready systems in the private sector, the Government will also consider in-kind technical support (both tangible and intangible including intellectual property rights) and financial sponsorship to the private healthcare and IT sectors.
- 45. In general terms, the principle of government financial sponsorship is that no subsidies will be provided to cover the day-to-day operation of private healthcare providers. Private sector partners (whether non-profit-making or otherwise) should be responsible for their own hardware, software and recurrent expenditure, as well as the costs incurred for the development of any additional or specific components of their systems that fall within core components required for eHR sharing.
- 46. The forms of government support to eHR partnership may include
  - (a) Provision of technical advice, transfer of knowledge and training support as necessary to facilitate the IT vendors with the necessary technology

- know-how to support/develop eHR solutions with sharing capabilities.
- (b) Making available the technology know-how of the public sector systems including eHR technical standards and other eHR-related intellectual property through licensing to IT vendors.
- (c) Provision of financial support to eHR projects undertaken by non-profit-making professional bodies, which would make solutions available through open source and in not-for-profit manner to the local healthcare sectors.
- 47. IT vendors shall shoulder the development costs for developing the eHR systems, including cost of any licensing for public sector systems and standards. Private healthcare providers should be responsible for the cost of adopting eHR related systems developed by private IT vendors and other necessary recurrent costs, including IT maintenance and support services provided by IT vendors.

#### IV. Evaluation Mechanism

#### **Evaluation Criteria**

- 48. The proposals received from the EEI invitation exercise will be reviewed in accordance with the guiding principles, objectives and programme development plan for eHR development. The Working Group on eHR Partnership<sup>2</sup> has provided advice on the evaluation criteria and worked out the following broad principles for assessment of partnership proposals
  - (a) Relevant experience and capabilities of the proponents in healthcare IT project management. In particular, the organisation background, capability and expertise, project management experience in undertaking similar healthcare-related IT projects will be considered.
  - (b) Contribution of the proposal towards building a territory-wide eHR infrastructure. In particular, how the proposal can contribute to eHR development, arouse participation of target users and patient groups, promote interoperability and integration of various health IT systems, facilitate timely access of clinical information, encourage eHR sharing etc. will be considered.
  - (c) Anticipated benefits of the proposal towards the improvement of patient-centred healthcare services. Considerations will be taken into account on how the proposal can enhance patient care and ensure safety and quality of healthcare services. Assessment on whether the proposal can facilitate public health monitoring, enhance disease surveillance, allow better clinical information flow, reduce medication/prescription errors, better management of risk etc. will be evaluated.
  - (d) **Quality and proposed approach of the proposal.** Consideration will also be given to the practicability and overall planning for implementing the proposal. Factors such as the project scope, proposed implementation approach, project management and major deliverables will be evaluated.

private and non-governmental partners including heathcare professional bodies, private medical groups, private practitioners, laboratory, non-governmental sector, etc.

<sup>&</sup>lt;sup>2</sup> The composition of Working Group on eHR Partnership includes members from the Steering Committee on eHR Sharing, relevant government departments and agencies, representatives of relevant private and non-governmental partners including healthcare professional bodies, private hospitals,

#### **Evaluation Process**

- 49. The EEI Evaluation Team, comprising representatives from the eHR Office, the eHR Project Management Office (eHR PMO) of HA, and representatives of relevant government departments, will conduct assessment on all submitted proposals according to the assessment criteria mentioned above.
- 50. The EEI Evaluation Team will then accord priority and recommend on-going engagement plans for partnership projects, taken into consideration individual project implementation timeframe and alignment with the overall schedule of eHR development programme. The Working Group on eHR Partnership will also advise on the proposed engagement plans for the partnership projects.
- Based on the recommended list of eHR partnership projects, the Government will carry forward on-going engagement plans with the eHR partnership projects. The Government will consider and allocate necessary resources having regard to the individual schedule of partnership project and latest development of eHR programme.
- 52. The Government sees engagement of the private sector an integral part of eHR development and will encourage participation of all stakeholders in the eHR development. All partnership proposals put up will be considered as long as they can meet the EEI objectives of facilitating the development and deployment of eMR/ePR systems and contributing to eHR sharing in the private sector.

#### V. Other Information

- 53. The purpose of this exercise is to invite feedback in a structured way and on a non-committal basis. The Government is not bound to accept any proposal submitted.
- 54. This invitation is neither a tender exercise nor a pre-qualification exercise to shortlist or pre-qualify any proposals. Interested parties who do not submit a partnership proposal at this juncture will not be barred, or prejudiced against, from participating in future eHR development.

#### Intellectual Property Rights in the Proposals

- All submissions shall be the original works of the proponents and shall not contain any materials infringing any third party intellectual property rights. Proponents shall indemnify and keep the Government fully and effectively indemnified against all costs, claims, demands, expenses and liabilities of whatsoever nature arising from or incurred by reason of any such infringement or alleged infringement.
- In submitting a proposal in response to this exercise, the proponents shall be deemed to have granted to the Government a freely transferable, royalty-free and irrevocable licence to use, adapt and modify the ideas and proposals submitted and all intellectual property rights subsisting in the submissions for all purposes in respect of or in connection with eHR development programme. Proponents shall, if required by the Government, do all things and execute all instruments or documents for the purpose of conferring the rights and interests on the Government.
- 57. The Government shall be entitled to disclose or make copies of any or all of the submissions for the purpose of formulating appropriate strategy to further promote eHR development, and to keep such copies for record purpose.

#### **Confidentiality**

- Proponent's views will not be individually identified or referred to third parties and information gathered from different proponents will be collated to establish the most practical and attractive approach to implementation. All information provided in this exercise will be treated in confidence and will not be considered in any future procurement exercise.
- 59. The Government will take all reasonable steps not to disclose confidential information provided by the proponents in its submission. All non-public financial and corporate information received and expressly marked and specifically identified as confidential will be treated in confidence. This provision shall not apply to the

#### disclosure of information -

- (a) To any person for the purpose of considering or exploring the feasibility of or developing the proponents' proposal.
- (b) To any person in the Government's exercise of any intellectual property rights granted by the proponents to the Government.
- (c) Already known to the Government other than as a result of disclosure by the Government.
- (d) That is or becomes public knowledge.
- (e) That is rightfully in the Government's possession prior to the date of the proponents' submission of the proposal.
- (f) In circumstances where such disclosure is required pursuant to any law or order of a Court of competent jurisdiction.
- (g) With the prior consent of the proponents.

#### Personal Data of the Proponents

- 60. The provision of personal data by means of this exercise is voluntary. The personal data of the proponents and of any individual provided as part of the proposals will be used by the Government for the purposes of assessing the feasibility of proposals, and all other purposes necessary for or directly related to the said purposes including but not limited to the resolution of any dispute arising from the proposal.
- The proponent and the individuals who are the subject of personal data have a right of access and correction with respect to personal data as provided by the Personal Data (Privacy) Ordinance. Enquiries concerning the personal data collected by means of this exercise, including the making of access and corrections, should be addressed to CMSO(eHR), eHealth Record Office at Room 608, 6/F, Murray Road Multi-storey Carpark Building, 2 Murray Road, Central, Hong Kong or via email: eHR@fhb.gov.hk

#### Disclaimer

- 62. The information and material contained in this invitation document is for general reference only. It does not constitute any representation or warranty on the part of the Government and shall not be treated as a legal binding document. The Government reserves the right to add, amend or delete the whole or any part of this invitation document.
- 63. Whilst every effort has been made to keep information current and accurate, proponents are advised to exercise caution and check the information before acting upon it.

- 64. Whilst the information in this invitation document has been prepared in good faith, it does not claim to be comprehensive or have been independently verified. Any liability in respect of any such information or inaccuracy in or omission of is expressly disclaimed.
- 65. The Government reserves the right, without prior consultation or notice, to change the content of this invitation document. The Government is not obliged to inform proponents of any update or change of any of the information in the invitation document made or that comes to proponents' knowledge after the issue of the invitation document.
- 66. The submission by a proponent shall be taken to be an acceptance of the terms of this invitation document.
- 67. Each proponent shall be solely responsible for the fees, costs and expenses incurred in preparing and making a submission. The Government will under no circumstances be liable to any proponent for any such fees, costs, expenses, loss or damage whatsoever arising out of or in connection with the exercise or its submission process.

#### VI. Submission of Proposal

- 68. Interested IT professional bodies and private IT vendors should complete the *Schedule* for submission of proposals on eHR partnerships which contains the following sections
  - (A) Particulars of the Proponent
  - (B) Background and Experience of the Proponent
  - (C) Partnership Proposal
  - (D) Request for Government Support
  - (E) Declaration and Authorisation.
- 69. Response to this invitation is on a non-committal basis. Those who do not show interest in taking part in eHR partnerships at this juncture will not be barred, or prejudiced against, from participating in future eHR partnership projects.
- 70. The proposal shall be submitted in either English or Chinese. Any other relevant reference materials can also be supplemented.

#### Submission

71. The eHR partnership proposal should be submitted in two softcopies with identical content (one softcopy in pdf format with signature, another softcopy in word format without signature) on or before *31 January 2011 (Monday)* via email to eHR@fhb.gov.hk for assessment.

#### VII. Briefing and Enquiry

72. IT professional bodies and private IT vendors are invited to participate in stakeholder forums with details as follows –

Date	Time	Venue	Registration
			Deadline
23 November 2010	2:30 -	Lecture Hall, Hong Kong Science	19 November
(Tue)	4:30 pm	Museum, 2 Science Museum Road,	2010 (Fri)
		Tsim Sha Tsui East, Kowloon	
6 December 2010	2:30 -	Lecture Hall, G/F, Hong Kong Space	2 December
(Mon)	4:30 pm	Museum, 10 Salisbury Road, Tsim	2010 (Thu)
		Sha Tsui, Kowloon	

- 73. Parties interested in attending any of these stakeholder forums can complete and return the *Reply Form* for registration by fax at 2102 2430 or via email to eHR@fhb.gov.hk before the registration deadline.
- 74. For enquiries, please contact EEI hotline at 3586 2391 or 3586 2410 or via email to <a href="emailto-eHR@fhb.gov.hk">eHR@fhb.gov.hk</a>. The Government shall, to the extent necessary and appropriate, reply to any enquiries of the proponents regarding the invitation. The Government shall not be responsible for any misdirected letters or emails.
- 75. This document and other related information can be downloaded from the eHR Office website at http://www.ehealth.gov.hk.

#### VIII. Further Steps

- 76. The engagement for private stakeholders will be an on-going exercise after the launch of this EEI exercise. The Government considers engagement of the private sector an integral part of eHR development, which will be an interactive process that will continue among all stakeholders throughout the life of the project, guiding the planning, facilitating the roll-out of individual project and enhancing systems as they mature.
- 77. The Government will take forward on-going engagement plans for the partnership projects to provide necessary government resources to tie in with the individual project implementation timeframe and overall eHR development schedule. Project implementation mechanism with specific scrutiny processes and approval procedures will be established to evaluate newly submitted partnership proposals and administer the implementation of partnership projects. Close collaboration with private IT service providers will be established throughout the project cycle.
- 78. The Government will conduct interim review on the overall development of eHR partnership projects and formulate appropriate strategy and other recommendations to further promote eHR sharing among the private stakeholders and the general public.

#### Pilot Partnership Projects for eHR Sharing

#### **Pilot Partnership Projects for Sharing of Medical Records**

### 1. Public-Private Interface - Electronic Patient Record Sharing Pilot Project (PPI-ePR) (http://www3.ha.org.hk/ppp/ppiepr a.aspx)

- The PPI-ePR pilot project was launched in April 2006, which enables participating private healthcare providers and other registered institutions to view their patients' medical records kept at HA, subject to patients' consent. Over the past years, the project has enrolled over 110 000 patients, over 1 750 private healthcare professionals, 12 private hospitals and 32 other private or non-governmental organisations (NGOs) providing healthcare-related services, and more than 140 institutions.
- PPI-ePR has received positive feedback from both the participating patients and healthcare providers. The PPI-ePR project will be expanded to more private healthcare professionals and NGOs, to allow more patients and private healthcare providers to experience the sharing of electronic patient records.

#### 2. Radiological Image Sharing Pilot Project

- Launched in January 2009, the Radiological Image Sharing Pilot allows participating private healthcare providers with patient's consent to send radiological images of enrolled patients to HA via electronic means.
- As at early 2010, two private hospitals have already participated in the programme. Discussion with a number of radiology centres and private hospitals on their participation is underway. The pilot will be expanded to other interested private healthcare providers.

#### 3. Cataract Surgeries Programme (<a href="http://www3.ha.org.hk/ppp/csp.aspx">http://www3.ha.org.hk/ppp/csp.aspx</a>)

- A pilot public-private partnership scheme launched in February 2008 under which eligible public patients are subsidised to undergo cataract surgeries in private hospitals, allowing the participating private healthcare providers to enter clinical information of their patients and view the patients' medical records kept at HA through an ePR system, hence making two-way eHR sharing possible.
- So far, over 7 300 patients and 80 private doctors have participated in this programme. The programme will continue to implement in 2010/11.

### 4. Tin Shui Wai Primary Care Partnership Project (http://www.ehealth.gov.hk/en/docs/tsw\_leaflet.pdf)

- A public-private partnership project has been launched in Tin Shui Wai to allow chronic disease patients in stable conditions and in need of long-term follow-up treatment at public general out-patient clinics (GOPCs) to receive treatment from private doctors with partial subsidy provided by the Government. Under the programme, participating private healthcare providers can enter their patients' clinical information and view the patients' clinical records kept at HA, through an ePR system and build up a continuous record for chronic disease patients who were being followed up at public GOPCs.
- A total of over 1 100 patients and 10 private doctors have participated in this programme since its launch in June 2008.

# 5. Haemodialysis Public-private Partnership Programme (<a href="http://www3.ha.org.hk/ppp/hdscp.aspx">http://www3.ha.org.hk/ppp/hdscp.aspx</a>)

• A three-year pilot public-private partnership scheme was launched in March 2010 under which end stage renal disease patients being followed up by HA are given a subsidy to receive haemodialysis services in community haemodialysis centres operated by the private sector or NGOs. A specially designed electronic information system was developed to allow sharing of clinical information between HA and the community haemodialysis service providers.

#### 6. Patient Empowerment Programme

- A pilot patient empowerment programme has been implemented in selected clusters of HA in collaboration with NGOs to improve chronic disease patients' knowledge on their diseases and enhance their self-management skills. A multi-disciplinary team comprising allied health professionals from HA will develop appropriate teaching materials and aids for common chronic diseases and provide training for frontline staff of the participating NGOs. An electronic information system was developed to allow access of clinical information by participating NGOs as required, as well as to provide information of the process and outcomes of the participating patients to the clinicians of HA.
- The programme was launched in March 2010 and will serve over 30 000 patients over 3 years.

### 7. Shared Care Programme (http://www3.ha.org.hk/ppp/Download/385/SCP\_Pamphlet.pdf)

The programme has been launched in Sha Tin and Tai Po districts of the New Territories East Cluster of HA in March 2010. The programme provides chronic disease patients currently under the care of the public healthcare system with additional choices to have their conditions followed up by private doctors. It aims to test a service model for public-private shared care for chronic disease patients in the primary care setting, provide patients with choices other than the public healthcare system and establish long-term patient-doctor relationship in order to achieve continuous and holistic care. An electronic platform has been developed for timely, two-way sharing of clinical information between HA and the private doctors participating in the programme.

#### Other Pilot and EEI Projects

#### 1. eHealth System (<a href="https://apps.hcv.gov.hk/en/">https://apps.hcv.gov.hk/en/</a>)

- The eHealth System (eHS) is a web-based system which serves as an electronic platform on which voucher-based and subsidy schemes operate. The eHS captures key particulars of patients for administering targeted subsidisation for private primary healthcare services.
- The Elderly Health Care Voucher Pilot Scheme was launched in January 2009. There is no need to issue or carry vouchers in paper form as vouchers are issued and used through the eHS. The eHS has been enhanced to incorporate the Childhood Influenza Vaccination Subsidy Scheme and the Elderly Vaccination Subsidy Scheme starting since October 2009.

### 2. Validation Platform for eHR Data Standards Conformity (http://www.ehealth.org.hk/projects\_vp.php)

- Implemented by the eHealth Consortium Ltd. with sponsorship of FHB and the Office of the Government Chief Information Officer (OGCIO). eHealth Consortium Ltd. started building a pilot electronic web-based validation platform in May 2008.
- The electronic web-based validation platform aims at testing the conformity of the electronic medical record systems of participating healthcare providers to the eHR standards, which paves way for the future eHR sharing and facilitates the stakeholders for further integration with the eHR development. The Validation Platform was successfully rolled out in May 2010.

## 3. Wuhan Project of the Hong Kong Medical Association (HKMA) (http://cms3.hkma.org/)

- HKMA and the Information and Software Industry Association developed an open source clinic management system project, named "Tao Yuen Project" (i.e. HKMA CMS 3.0), in May 2007, with funding support from OGCIO.
- With funding support from the FHB in December 2009, HKMA will enhance the HKMA CMS 3.0 to Wuhan Version to enable public-private eHR sharing.
- The HKMA CMS 3.0 is a generic open source clinic management system which can be used by private doctors and connected to the eHR sharing platform in future. The system can further be integrated with the

Department of Health's notifiable diseases system. This can help enhance the efficiency and accuracy of reporting of notifiable diseases.

### 4. Dental Clinic Management System of the Hong Kong Dental Association (HKDA)

- With funding support from FHB, HKDA will provide training programme and technical support to promote adoption of HKDA Dental Clinic Management System (DCMS) for private dental practitioners, develop integration hub for dental care information exchange and integration with eHealth schemes.
- The entire solution, comprising the DCMS and the integration hub, will be open source and made available on a not-for-profit basis and free of charge to all dental clinics in Hong Kong.

#### **Details of 'eHR Compliant Service Provider' Scheme**

#### **eHR Compliant Service Providers**

#### A. Roles and Responsibilities

- Provide deployment, hosting, and post-implementation on-going support and maintenance services.
- Conduct user training.
- Act as a focal contact to communicate with the Government in relation to CMS extension on behalf of private hospitals and private healthcare providers.
- Obtain new enhancement releases through HA and arrange corresponding upgrade to users.
- Develop and implement registered eHR adaptors for existing local clinical systems used in private hospitals (for CMS Adaptation only).
- Install eHR adaptor provided by eHR PMO for eHR data sharing and upload (for CMS On-ramp only).

#### B. Requirements

- Solid IT system implementation and support experience and preferably in healthcare industry.
- Knowledge of data privacy and security policies.
- Membership of eHR CSP will be renewed periodically.

#### C. Timeframe

- To provide training to eHR CSPs in 2011.
- To begin registration in early 2012.

#### **Potential Areas for Request for Information (RFI)**

- To enable the sharing of medical data among healthcare providers, information model to give meaning and readability to the medical facts from various systems, and standards for data interfacing and guidelines for system interoperability specifications will be defined and implemented. To facilitate records management, systems are required to indicate the standards compliance level, including automated text, data integration, or interoperability etc. Software support for the definition, collaboration and maintenance of these standards and guidelines will be built to ensure their long term sustainability.
- Once the standards are defined, technical platform and gateways will need to be provided to verify the standards compliance of all interfaces with the eHR at different standards compliance level as indicated by individual systems. The compliance scheme will cover three main areas: data interface content and terminology standards, system interoperability and compliance with the eHR security protocol. Once the compliance is verified, both incoming and outgoing interfaces and transactions from these contributing parties will be received and transmitted through secured and guaranteed delivery gateways. The content of these interfaces will also be validated on an on-going basis to ensure that standards are complied with and the data will be transformed and stored in the repositories.
- Training and technical support will be offered to facilitate the adoption of these information models and standards by private sectors. Compliance verification programmes will be validated with private sectors through pilot interfaces and partnership programmes.
- Registries will be maintained for the compliant eHR contributing systems and interfaces as well as all eHR participating parties including public and private healthcare providers and consented patients. These will allow all parties, including both people and systems, be authenticated and their access controlled when interfacing with the eHR sharing systems.

#### 1. Compliance Services for eHR Products

• **RFI** - To invite IT sector's view on the suitability of contracting out the compliance verification and registration work to an external compliance assessor. The proposed framework for contracting out is invited.

#### 2. Secured Interface Gateway

• **RFI** - To invite IT sector's view on the feasibility of a secured interface software gateway to inter-operate with the eHR integration hub for secured connection and messaging between the individual eMR systems and the eHR Core. The gateway aims to provide a 'simple to administer' solution to facilitate the protection of data in transit and the implementation of HL7 standards messaging for eHR. The proposed framework for contracting out is invited.

#### 3. Radiological Image Browser and Integrated Archive Solutions

- eHR is a rapidly developing resource to the healthcare sector. When completed, it will serve as an all-encompassing repository of patient clinical data, including radiological images. The ultimate eHR sharing system will have an Image Archive to store the radiological images of patients, and an Image Browser will be made available for participating healthcare providers to retrieve and view the radiological images of patients subject to their consent.
- The Image Archive and Browser shall be released as an open source application, for all healthcare facilities to share. The Image Archive and Browser should be user-friendly, flexible, scalable, light-weight and responsive. The proposed system needs to demonstrate solid security, Digital Imaging and Communications in Medicine (DICOM) compliance, and compatible with eHR standards.
- The Image Archive and Browser shall take advantage of the latest in software and hardware technologies, providing high resolution clinical images from both lossless and compressed image data, from a multitude of imaging modalities from Ultrasound, CT and MRI to fluoroscopic x-ray and PET-CT.
- **RFI** To invite proposals from IT sector to create an open source radiological Image Archive and Browser, suitable for use across the healthcare sector.

### Forms of Partnership for eHR Development

Partnership	Potential Partners	Contribution from	Contribution from EEI	
Opportunities	from IT Sector	Government	Partners	
1. Upgrade or Develop Third Party Clinic Management System				
Upgrade or develop third party clinic management system with eHR sharing capability	<ul> <li>IT professional bodies and vendors interested in supporting the upgrading of private healthcare stakeholders' clinic management systems with eHR sharing capability</li> <li>IT professional bodies and vendors interested in developing eMR/ePR systems for sale in the market</li> </ul>	<ul> <li>Promulgate the latest eHR standards and requirements at eHRO website and other appropriate channels</li> <li>Provide technical trainings on eHR technical standards through regular briefings/trainings</li> </ul>	<ul> <li>IT vendors to shoulder the development costs for upgrading/developing clinic management system, and approach private healthcare providers to offer IT support services</li> <li>Private healthcare providers to pay by themselves IT vendor the cost for system upgrade conforming to eHR standards</li> </ul>	
2. Upgrade Sys	tems for Radiological	Image Sharing		
Upgrade systems of private hospitals or private radiology centres for Radiological Image Sharing	<ul> <li>IT professional bodies and vendors interested in supporting the upgrade of private healthcare stakeholders' systems for radiological image sharing</li> <li>IT professional</li> </ul>	<ul> <li>Promulgate the latest eHR standards and requirements at eHRO website and other appropriate channels</li> <li>Provide technical trainings on eHR technical standards through regular briefings/trainings</li> </ul>	<ul> <li>IT vendors to shoulder the development costs for upgrading systems to support radiological image sharing, and approach private healthcare providers to offer IT support services</li> <li>Private healthcare</li> </ul>	
	bodies and vendors interested in providing support to private healthcare stakeholders in the technical alignment process		providers to pay IT vendor the cost for system upgrade conforming to eHR standards and the support services in the technical alignment process	

Partnership Opportunities	Potential Partners from IT Sector	Contribution from Government	Contribution from EEI Partners			
3. Deployment	3. Deployment of CMS Extension Systems through 'eHR CSP' scheme					
i. Deployment of CMS On-ramp through the 'eHR CSP' scheme	• IT vendors interested in providing implementation services for CMS On-ramp	<ul> <li>Provide technical advice on deployment of CMS On-ramp, eHR adaptor and security settings</li> <li>Provide technical guidelines on software upgrade, enhancement release</li> <li>Establish/administer 'eHR CSP' scheme</li> </ul>	<ul> <li>IT vendors to join the 'eHR CSP' scheme for implementation and hosting of CMS On-ramp</li> <li>Private healthcare providers to acquire services from eHR CSPs and bear the cost for deployment services, and the development costs for any modified version that best suit specific clinical requirements</li> </ul>			
ii. Deployment of CMS Adaptation Modules through the 'eHR CSP' scheme	• IT vendors interested in providing integration and adaptation services for deployment of CMS Adaptation Modules	<ul> <li>Define the standards and protocols for adaptors development, which will be used to connect clinical systems to the eHR Core</li> <li>Compile documentation and guidelines on deployment of CMS Adaptation</li> <li>Establish/administer 'eHR CSP' scheme</li> </ul>	<ul> <li>IT vendors to join the 'eHR CSP' scheme for implementation and hosting of Adaptation Modules</li> <li>Private healthcare providers to pay for the costs for engaging eHR CSPs for integration of CMS Adaptation Modules to their existing eMR systems</li> </ul>			
4. Connect Th	rd Party Clinic Mana	gement System				
Connect third party clinic management systems with development of eHR adaptors/integration hub for eHR sharing	• IT professional bodies interested in supporting the connection of private healthcare stakeholders' clinic management systems with eHR sharing platform	<ul> <li>Sponsoring         non-profit-making         projects to be         undertaken by         non-profit-making IT         professional bodies</li> <li>The eHR adaptor/         integration hub to be         developed under the         sponsorship project         should be provided in         open source and         not-for-profit manner.         These products should</li> </ul>	<ul> <li>IT professional bodies to provide expertise in managing and developing the project</li> <li>IT professional bodies to share part of the project cost as a collaborative partnership project</li> <li>IT professional bodies to meet delivery target, e.g. proposals with significant</li> </ul>			

Partnership Opportunities	Potential Partners from IT Sector	Contribution from Government conform to eHR	Contribution from EEI Partners delivery targets of
		standards and pave way for eHR sharing	healthcare service providers adopting the eHR adaptors/integration hub
5. Develop Val	ue-added functions for	Open Source CMS On-r	amp
Develop value-added functions for open source CMS On-ramp	• IT professional bodies interested in developing value-added functions on open source CMS On-ramp, e.g. advanced billing and accounting, drug control, pharmacy ordering, etc.	<ul> <li>Sponsoring non-profit-making projects to be undertaken by non-profit-making IT professional bodies</li> <li>The enhanced CMS On-ramp with value-added functions should be provided in open source and not-for-profit manner. These products should conform to eHR standards and pave way for eHR sharing</li> </ul>	<ul> <li>IT professional bodies to provide expertise in managing and developing the project</li> <li>IT professional bodies to share part of the project cost as a collaborative partnership project</li> <li>IT professional bodies to meet delivery target, e.g. proposals with significant delivery targets of healthcare service providers adopting the enhanced CMS On-ramp with add-on functions</li> </ul>
	Information on Techni	cal Issues	
Request for Information to address technical issues	• IT professional bodies and vendors interested in proposing new ideas related to compliance services for eHR products, secured interface gateway, development of image archive and browser for radiological image sharing, etc.	<ul> <li>Outline high-level framework on the potential RFI scope</li> <li>No commitment on RFI</li> <li>Government's procurement of goods and services arising from any proposal would need to go through established procurement process</li> </ul>	• IT professional bodies and vendors to propose viable solutions for consideration