TERMS OF REFERENCE

Consultancy to develop a digital information management system for maternal and child health care

Summary

Title	Development of a digital information management system for maternal and child health care
Purpose	To develop a digital information management system for maternal and child health in Viet Nam
Location	Ha Noi, Viet Nam
Duration	October 2023 – March 2024
Start date	Tentatively mid October 2023

Background

Digital technologies and improved data capacity are important catalysts for accelerating achievement of the 2030 SDG3 targets. Actionable and relevant data are the foundation to monitor progress toward SDG 2030, while harmonized digital systems optimize the health system to deliver in a coordinated manner, quality, coverage, and equity of health services. Digital systems can catalyze a necessary transformation in the health system - addressing ongoing data gaps and persistent health system challenges, facilitating a more resilient, person-centered, and responsive health system.

Digital innovations at community and primary health facility level can be useful for strengthening the linkages with, and use of, formal health services, while also supporting the institutionalization and strengthening of the community health system as a whole. The term "digital health", which includes both mHealth and eHealth, describes the general use of information and communication technologies (digital, mobile and wireless) to support the achievement of health objectives. Some successful examples include stock management tracking, electronic decision support tools for health workers, health worker communication and performance feedback, targeted messages and service delivery to clients, citizen-based reporting for increased accountability, and data storage, aggregation, and visualization do drive action/response.

The government of Viet Nam has approved an all-encompassing digital government strategy which also includes the healthcare sector. This strategy sets out a vision to be completed by 2030 and it showcases the strong commitment of the government to digitize all aspects of it. The Ministry of Health (MOH) has set out targets to digitize the healthcare sector from 2019-2025, including gradually build a smart healthcare and prevention system, using electronic medical records and electronic payments, and strengthening the application of information technology in health management.

As a trusted, long-term partner of the Government in Viet Nam, UNICEF is committed to providing support for MOH to further strengthen the health information and management systems with a focus on collection and reporting of related maternal and child health (MCH) data and information though digitalization of the current paper-based MCH information systems and improvement in functionality and interoperability of existing digital health systems on MCH such as the health statistic software, the MCH digital book, and the national immunization information system (NIIS).

Justification for requesting an institution

Although the health sector has issued different documents and guidelines to promote digital transformation and application of Information Technology (IT) in a comprehensive manner in recent years, the adoption of information technology in the field of Maternal and Child Health Care (MCH) and Reproductive Health Care (RHC) has not met expected results. Medical examination and treatment and remote professional support (telehealth) have not been widely provided while reproductive health care database management is still in its infancy. Software has not yet been adopted to manage information about the network system such as status of facilities, equipment, human resources, network organization and service provision capacity of reproductive health care units.

The new health statistics software only computerizes the forms of general statistical reports at the commune, district, and provincial levels, but not initial notebook templates, consequently, health workers still must manually summarize reporting data from physical notebooks. Manual data summary and entry leads to errors, confusion, and it takes a long time to review the data. Hospital management software, medical statistics reporting software, health records, electronic maternal and child health record books, vaccination management software, etc. are deployed in silos without interconnection and interoperability. The health sector has not owned in-depth information management systems such as a shared database on reproductive support (including management functions for donating and receiving sperm, ova, and embryos), connecting all reproductive support facilities nationwide; an information management system for cervical cancer screening in women or an information system that manages maternal and child mortality assessment, etc.

In this context, developing an overall MCH electronic information management system that manages every individual's information, ensuring data connection with other relevant digital health platforms such as Medical examination and treatment management software (HIS), Medical statistics software and NIIS will ease the burden of data entry for medical staff, improve data quality, and enable data aggregation and analysis for administration, intervention mapping and policy making in the field of maternal - child health care and reproductive health. Given the systems should be designed in Vietnamese language and must be compatible with the e-government architecture of the Ministry of Health version 2.1, UNICEF Viet Nam will recruit **a local institution** to support with development of

an electronic MCH information management system that can be rolled out and scaled up national wide in Viet Nam.

Objectives

- Build an open-source digital information management system for maternal and child health care (MCH) and reproductive healthcare (RHC) of Viet Nam's Ministry of Health to manage information by case, support timely analysis and synthesis of accurate relevant statistical reports.
- Connect and exchange data with digital relevant health platforms including medical examination and treatment management software (HIS), electronic maternal and child health record books, medical statistics software and NIIS.
- Provide dashboards to visualize maternal and child health care data to serve governance and administration.

Methodology and approach

The consultancy institution reviews documents issued by the Ministry of Health in the field of maternal-child health care and reproductive health, and coordinate with the National Health Information Centre, the Department of Maternal and Child Health and UNICEF to define user requirements, functions, and scope of work and cooperate with developers of Medical Examination and Treatment Management Software (HIS), Electronic Health Record, Medical Statistics Software, Electronic Maternal and Child Health Record Books in studying technical specifications, connection model, data formats, and assessing integrated solutions.

Scope of work

1. **Conduct landscape assessments to define requirements.** This includes end user interviews, desk review, enabling environment assessment, business process mapping, business and functional requirements mapping as well as UID assessment. The consulting unit will coordinate with Department of Maternal Health and Children, National Health Information Centre to clarify requirements and scope of system development. Survey stakeholders to propose solutions for connection and sharing of data in the field of maternal - child health care/reproductive health.

2. **Develop an information system in the field of maternal - child health care/reproductive health (Proposed system structure is attached).**

   a. The system must minimally meet but not limited to the following functions:

   - Manage initial notebooks in the field of maternal and child health care/reproductive health: Manage information by specific subject. Health information of the same subject (women/mothers/children) must be linked together to ensure no duplicate statistics when a person goes to many places for medical examination and treatment. The system provides users with a function to input data in the field of maternal - child health care/reproductive health on the application interface or in the form of excel file, to check data validation and give warnings and automatically calculate formula-based indicators.

- Manage network reporting data: Provide a function to import network reporting data on the application interface or in the form of excel file.
- Manage statistical reports: The system must be able to export statistical report forms in accordance with Circular No. 37/2019/TT-BYT stipulating the statistical reporting regime of the health sector and reporting forms as stipulated in the Manual guiding the implementation of statistical reporting in the field of maternal -child health care and reproductive health, issued according to Official Letter No. 954 dated 28/02/2023 of the Ministry of Health on the implementation of the reporting sub-system on maternal-child health care/reproductive health.
- Connect, communicate, and share data: The system must ensure data connection, communication, and sharing (interoperability) with the Electronic Health Record (EHR) Platform, the Commune/ward Health Facility/Station Management Platform, and Electronic maternal and child health record books and other relevant digital solutions as needed.
- Coordinate with HIS software vendors and provide APIs to receive data from medical examination and treatment management software (HIS), NIIS and synchronize statistical reporting data on Medical Statistics Software.
- Build dashboards to visualize data in the field of maternal-child health care/reproductive health to serve governance and administration.
- Build a log-in page, jointly using the same accounts with the medical statistics software.

b. The system must meet the following technical functionalities:

- Have an open architecture, should support multi-environment deployment, and design for easy upgrade to meet the expansion of scale, number of system participants, data storage capacity, etc.
- Its architecture must be compatible with the e-government architecture - Ministry of Health version 2.1.
- Provide tools to back up data periodically and unexpectedly and have a data recovery mechanism in case of system crashes. Provide a mechanism to supervise and monitor user access information, and a mechanism to log the operation of each component of the system for identifying and fixing errors when the system encounters unexpected incidents.
- Comply with commonly recognized health data interchange standards such as HL7, FHIR or other related standards to facilitate data interoperability with other health information systems.
- The interface design is user-oriented and friendly. Reasonable interface layout makes data entry and search fast and convenient. The system must respond quickly in terms of data entry, export, and reporting to ensure a smooth user experience even with enormous amounts of data.
- Meet information security and safety at different levels: network, user authentication and database level. The system must have strong user authentication and role-based access control to provide access to the system based on user permissions. Comply with regulations on personal data privacy and security in accordance with Vietnamese laws,

- The system has audit trail capabilities to provide insight into the database and transaction activity and to allow for rolling back of transactions to a prior state. The system can produce reports showing changes to records,
- The proposed system needs to be able to operate offline when and where needed via an online/offline e-MCH gateway to/from a centrally hosted server or cloud hosted service,
- The system must provide mobile-first and tablet-friendly layout and navigation (including search and filter options) and support low-bandwidth locations. Flow of data and level of information should be user-friendly from the landing page, quick and intuitive navigation to filters/dashboards. Search functionality should be robust to allow users to quickly identify patients.

c. Integration and Interoperability:

The system must be developed considering the Principles of Digital Development e.g., the system must use open-source, open data, and open standards for integration/interoperability with existing systems. The proposed system must have the following functionalities:

- Ability to read data from different sources and APIs to pull and integrates data including from other publishers in the IATI registry, IATI datastore etc. APIs must be well-documented and included in the final initiative deliverables.
- Ability to do bulk data downloads in different formats (machine-readable and documents – e.g., PNG, CSV, JSON, Excel, PDF, PowerPoint)

3. Test and pilot (Deployment of e-MCH in selected provinces).

- The contractor/institution prepares a test plan, defines test requirements and scope.
- Create test cases and scenarios, determine test conditions based on the system's functions and technical functionalities.
- Set up and maintain a test environment similar to the actual operation environment, execute the test and report test results.
- Implement the pilot and training in one province identified by MOH and UNICEF, complete the system before rolling it out to remaining provinces.
- The contractor will coordinate with UNICEF Viet Nam focal points and relevant Departments of MOH, to implement piloting phase and organize a findings dissemination workshop and discussion meetings with the key stakeholders in Viet Nam after the field implementation.
- The testing result report must include the scale up strategy, recommendations for the broader live deployment of the E-MCH systems, lessons learned from the pilot/deployment and revised costed implementation work plan.

4. Training and technology transfer.

a. Technology transfer

- After acceptance of MOH and UNICEF, the consulting unit provides training and transfers the System to the National Health Information Centre of MOH for maintenance and operation. The handover documents include source code, business analysis documents, system design documents, database design, manuals for use, administration and

operation, user training materials, technical documents for data connection and communication.

- After handing over the product, the consulting institution continues to provide supportive supervision to end-users, support the delivery of training in provinces identified by MOH and UNICEF and provides a warranty of at least 1 year, addresses technical errors arising during the deployment in provinces and ensures smooth system operation.
- The proposal must describe the annual support and maintenance schemes that is provided. This will include the internal procedures and processes for resolution of problems and strategies for service improvements e.g., software fixes, releases and updates, helpdesk support, access to bulletin boards etc. A service level agreement (SLA) must be part of the contract documents which should include details of the service, the standards the vendor must adhere to, and the metrics to measure the performance.
- The Proposer shall describe Change Management Methodology including deployment of new releases, management of existing user requested changes and inclusion of new change requests. Include sample documentation or tools and forms used for change requests, enhancements etc.

b. Training

- Knowledge transfer and training needs on the entire application, both for users and administrators, should be included. This should include training materials that must be SCORM-compatible which can be published in a standard learning platform for online training.
- The Vendor shall provide:
  - Technical training with UNICEF Viet Nam and other relevant Departments of MOH and stakeholders in all aspects of maintenance and administration, operating and troubleshooting the software solution. Training shall also cover the basic and advanced functionalities of the system and any other necessary functions for the software application.
  - Training in all aspects of maintenance, configuration, and customization (where applicable). Training shall also include the technical knowledge transfer on how to adjust, update or modify the configuration and customization applied to the solution implementation.
  - Technical guide/manual on the platform management and administration and users guides for the end-users
- The Proposal shall include:
  - Comprehensive plan on how to implement the training.
  - Description and examples of the training materials that the Vendor had previously developed / produced in similar format as required (if any).

5. Data Migration

If applicable, the Vendor shall migrate data from the existing legacy platform to the Vendor's developed solution. Data migration strategy and details will be documented, and personnel identified by UNICEF Viet Nam will be trained in this process.

Deliverables and time frame

The consultancy team consisting of IT experts, managers and programme developers will be responsible for handing over the following deliverables to the National Health Information Centre, Department of Maternal Health and Children, and UNICEF for approval.

No	Task descriptions	Deliverables	Estimated timelines/Duration
Act. 1	**Conduct landscape assessment, analyse business requirements, prepare system analysis and design documents**		
1.1	Conduct a user inquiry survey (landscape scoping assessment). Review documents issued by the Ministry of Health. Document survey results.	Business requirements analysis documents	30 days from the date of contract signing
1.2	Research, analyse and design detailed system. Document the detailed design of the system.	System analysis and system design documents	
1.3	Organize an analysis workshop/meeting with relevant stakeholders (client, users, UX, architect, development team) to go through the list of backlog items and understand the requirements in detail.	An analysis workshop/meeting with relevant stakeholders on the list of backlog items and the requirements in details.	
Act. 2	**Building an information management system in the maternal- child health and reproductive health field**		
2.1	System development and customization, including security and data recovery plans and specifications. These should be based on business requirements documents, system analysis and design documents gathered.	Developed system that offers all required functions.	75 days from the date of handing over Act. 1

No	Task descriptions	Deliverables	Estimated timelines/Duration
	Organization of regular meeting with UNICEF and relevant Departments of MOH		
2.2	Make test plan, define test requirements and scope Develop test cases and scenarios, determine test conditions based on the system's functions and technical functionalities. Execute the test and document results	Test script and test results report.	25 days from the date of handing over Act. 2.1
Act. 3	**System Deployment**		
	Install the system on the server infrastructure of the National Health Information Centre of MOH	Installed system on the infrastructure of the National Health Information Centre Minutes of acceptance of installation, testing and commissioning.	05 days from the date of handing over Act. 2.2
Act. 4	**System User Manual**		
4.1	Develop system manuals	System use manuals for end users and admins.	10 days from the date of handing over Act. 2.2
4.2	Prepare system installation and operation documents	Documents of system installation, administration, and operation.	
Act. 5	**Training and project transfer**		
5.1	Hand over system documents	System handover documents include: - Business analysis document - System design, database design documents - User guide, administration, system operation manuals - User training documents	4 days from the date of handing over Act. 4

No	Task descriptions	Deliverables	Estimated timelines/Duration
		- Technical documents for data connection and communication	
5.2	Handing over the final source code to the National Health Information Centre, Department of Maternal Health and Children, UNICEF.	System source code	
5.3	Training for staff of the National Health Information Centre, Department of Maternal Health and Children and UNICEF	Minutes of training confirmation	05 days from the date of handing over Act. 5.1 and 5.2
5.4	Pilot, training and user manual in 01 province identified by MOH and UNICEF. Organization of a dissemination workshop and discussion meetings with key stakeholders	Report on system piloting including lessons learned, scale up strategy and recommendations. Minutes of confirmation signed with the National Health Information Centre, Department of Maternal Health and Children and the province.	05 days after Act. 5.3
5.5	Continues to provide supportive supervision to end-users, support the delivery of training in provinces identified by MOH and UNICEF and provides a warranty of at least 1 year, addresses technical errors arising during the deployment in provinces and ensures smooth system operation	Proposal of continuing support	After Act. 5.4

Management

UNICEF CSDE Section in close consultation with the UNICEF T4D Officer will be responsible to ensure that the tasks are conducted per quality standards, norms and ethical procedures of UNICEF. In addition, there would be engagement and technical advice and support provided through relevant experts and specialists from UNICEF Regional Office. Relevant departments of MoH (e.g., the MCH Dept., National Health Information Centre, Health Statistic Unit) will engage and provide necessary support to the consultancy institution for planning and implementation of this TOR for instance support for evaluation of bidding proposals and introduction letters. A non-formal joint MOH-UNICEF

technical working group will be established for review and providing comments to the quality of assignments and products developed by the consultancy.

The consultancy institution will be responsible for planning, implementation, and completion of the tasks with the timelines set in this TOR. In this regard, the proposer will need to provide detail information on how they will be able to manage project scope, progress, updates during the implementation. In addition, the proposer will need to propose procedures for communications between the parties which include organization of regular meetings with UNICEF and relevant Departments of MOH to review the progress and obtain comments and or endorsements on products. Products delivered must be approved by the National Health Information Centre and Department of Maternal Health and Children of MOH, and UNICEF.

Change Management: Considering the context and considerations and the results of the iterative process of acceptance testing, both the vendor and UNICEF Viet Nam recognize that as their activities progress and they work with other stakeholders, the design of the system being developed, the technical teams may agree to amend or update the Requirements and the scope and timeline, in consultation with relevant stakeholders. Any non-material adjustments or changes will not be regarded as a change in scope; if there are any material changes to the scope, these will be discussed and agreed upon by UNICEF Viet Nam and the vendor.

Quality Assurance:
A service level agreement (SLA) must be part of the contract documents which should include details of the service, the standards the vendor must adhere to, and the metrics to measure the performance.

The solution will be tested by business users identified and agreed upon by both parties. The proposal should include a recommended test plan that can be used during testing/validation. The final approval of the solution will require formal signoffs by business focal points which will be based on acceptance tests where business users validate functionalities against the requirements and usability testing, in case of any new user interfaces built as part of customization.

The proposal should include the Vendor's process in ensuring that no configuration or executable code will be implemented into the Production environment until evidence of confirming to the testing criteria (user approval, Quality Assurance, or the equivalent) is acquired and the associated program source libraries have been updated. Vendor should give UNICEF Viet Nam project leads and key focal persons of relevant Departments of MOH unlimited access and rights to sort-codes; and should not by any means change login details without notifying UNICEF Viet Nam project leads.

Prior to commencing development, the vendor should share a user acceptance testing (UTA) and user interface/user experience (UI/UX) testing plan to be performed. The vendor should also share the final acceptance testing of the system ("Acceptance Testing Plan"). The Acceptance Testing Plan will be integrated into the Business and Technical Requirements. The Acceptance Testing Plan will incorporate UAT and UI/UX in the field as part of a structured, iterative process of development and acceptance testing. The vendor will be available for field visits and validation exercises and will be responsive to the input of UNICEF Viet Nam and MoH. Acceptance testing will be conducted in order to:

- For UAT: (i) determine whether Software Product performs in accordance with the Requirements, (ii) ensure that Software Product is capable of seamlessly running, processing, handling and reporting on a variety of data without failure, and meets the runtimes and other performance standards set out either in the relevant Requirements or in the Acceptance Testing Plan, and (iii) assess the security of system; and

- For UI/UX: (a) verify how usable the systems are, (b) ensure that system can be effectively used by end users in the intended environment, and (c) test interface preferences with end users.

Security
The Proposer must submit integrity certificate (e.g., assessment by an application security testing vendor) ensuring that the application is free from embedded malicious/fraudulent codes along with the security assessment plan, used tools and the assessment reports. The response must include information on the standard security updates and application upgrades. Proposer must also submit the process of preventing the introduction of malicious/fraudulent codes as well as steps to follow if such an event occurs. In addition, the Proposal must include a detailed explanation and confirmation of the tool's compliance with data security.

Documentation
As part of the initiative delivery, a handover to technical developers is to be conducted to enable them to manage and maintain the solution.
The selected proposer should provide all needed documentation related to development of the solution e.g., the technical documentation as it was set up and configured, end-user documentation etc. This documentation shall be in digital format; either as standalone material or can be part of SCORM-compliant training materials. The selected proposer is expected to provide the technical team code walk-through and technical documentation. The selected proposer is expected to provide business owners with initial training and documentation on the maintenance of the software.
The Technical Proposals must include description and examples of the end-user documentation and technical documentation in the format as required above that the Proposers had provided in other similar projects.

Qualification and experience required

The consultancy institution should be composed of enough local experts and specialists for successful implementation of the assignment. The consultancy team should include but not limited to a project manager (Team leader), IT system development expert, IT quality assurance expert, data and software connection expert, IT/software development programmers, and IT trainers. In general, members of the consultancy team should have professional qualifications/specialized knowledge and experience as follows:

- Experience in building health information systems
- Experience in deploying large systems nationwide
- Experience in building systems having data interoperability with health insurance payment and settlement systems.
- Experienced in integrating management information systems with other systems in the health sector such as Hospital Information System, National Immunization System, V20 System.
- Experience working with UN/NGOs/governmental organizations in the health sector
- Experience in software development using Agile methodology.
- Proficient in at least one of the programming languages namely Node js, Java, C#
- Experience in managing databases namely My SQL, Postgres SQL, SQL Server, etc.

The team leader will be in charge of leading the entire process through working with team members. The Team Leader will be responsible for timely and quality deliverables, and must have:

- Advanced degree in health informatics, computer science, public health/medicine, development studies, economics or related field is required.
- At least 10 years of experience in leading the design and conduct of complex development relevant IT projects including overseeing software developers; responsibility for business analysis, budgets, contracts, procurement and project management
- Experience in IT and digital health system/software development, deployment and scaling up in the East Asian continent, preferably in Viet Nam.
- Familiarity with the work of UNICEF and/or other similar organizations working on digital health.
- Good understanding of human rights, equity and gender-based approaches to programming.
- Demonstrated ability to deliver high-quality written work in the English language, and to engage effectively with stakeholders at all levels.

The team members will be responsible for timely and accurate delivery of results. Team members must have:

- 'Master's or 'bachelor's degree in health informatics, computer science, public health/medicine, development studies, economics or related field is required.
- At least 5 years of work experience in identifying, designing, implementing, and quality assurance of solutions for relevant digital health projects with technical components.
- Familiarity with the work of UNICEF and/or other similar organizations working on digital health.
- Good understanding of human rights, equity and gender-based approaches to programming.
- Demonstrated ability to deliver high-quality written work in the English language, and to engage effectively with stakeholders at all levels.
- Gender balanced.
- Fluency in English is essential.

Payment schedule

Payment will be made in instalments based on submission of the deliverables by the expected timelines. Deliverables must be approved by the National Health Information Centre, Department of Maternal Health and Children, and UNICEF.

- First instalment: 30% of the contract value will be paid when the deliverables under Act. 1 are handed over.
- Second instalment: 30% of the contract value will be paid upon completion of preliminary product acceptance (completion of Act.3).
- Final instalment: 40% of the contract value will be paid upon completion of the overall product acceptance.

Estimated budget (in VND)

The proposer is recommended to use the 2022 UN-EN cost norms for budget estimation.

Evaluation Criteria

The weighted ratio between the technical and price criteria is 70:30. The complete proposals will be technically evaluated based on the following criteria and relative points:

The Technical Proposal shall include the followings to demonstrate and confirm the Proposer's compliance to the functional and non-functional requirements:

- Description of proposed technology; include discussion on programming language, if any is required either for configuration or customization.
- Description and illustration of the proposed e-MCH solution and related tools.
- Description of integrations with other governmental systems, solutions, platforms and technologies, e.g., with financial system, GPS tracker, etc.; include examples of implementations and key success considerations.
- Description of recommended Test plan, Training strategies including examples of previously produced materials, Documentation examples, Support and maintenance schemes and Compliance with data security.
- Documents of company credentials, financial statements of two recent years, quality assurance procedures and warranty, general organisational capability and personnel; and Experience in developing information systems in the healthcare sector.

The Technical Proposal should also mention the hardware requirements including storage and other database software.

The Technical Proposal should include indications of the minimum network conditions necessary for baseline user experience.
Specify the deployment model to be provided by the proposer:

- Software as a Service (SaaS or subscription-based models)
- On-Premises - hosted and managed by the National Health Information Centre, Ministry of Health.

Technical Criteria	**Technical Sub-criteria**	**Maximum Points**
Overall Response	Completeness of response	5
	Overall concord between TOR requirements and proposal	10
Maximum Points for overall response		**15**
Company and Key Personnel	Reputation of Organisation and Staff (Competence / Reliability, Litigation and Arbitration history)	2
	Financial status	2
	General organisational capability which is likely to affect implementation	2
	Quality assurance procedures, warranty	2
	Experience working with UN/NGOs/governmental organizations in the health sector and digital health	2

	Experience in developing information systems in the healthcare sector	2
	Key personnel: - Proposed team structure with adequate technical experts and specialists - Relevant experience, qualifications and position with firm - Gender balance	8
Maximum Points for Company and Key Personnel		**20**
Proposed Methodology and Approach	Implementation plan with clear description of detail activities, timeline, and monitoring which is in line with the requirements outlines in the TOR	20
	Project management, coordination and supervision process, change management, quality assurance, security, and documentation	10
	Innovation approach	5
Maximum Points for Proposed Methodology and Approach		**35**
TOTAL Maximum		**70**

Only those proposals that score 50 out of 70 points on the technical proposal will be shortlisted. Technically qualified proposals will then be financially evaluated. The proposal obtaining the overall highest score after adding the scores for the technical and financial proposals is the proposal that offers best value for money and will be recommended for award of the contract.

The Financial Proposal should be broken down for each component of the proposed work as listed in the above tasks.

All prices/rates quoted must be in Vietnam Dong (VND) and exclusive of all taxes as UNICEF is a tax-exempt organization.

Financial Proposals must be submitted separately to Technical Proposals.

All Proposals must be signed and sealed by the Proposers' authorized representatives.

Annex- Proposed system structure