

Request for Application #2023-052

Development of a Product Suite for Telemedicine and Remote Care

I. Summary of Deadlines

The expected schedule for this application is outlined in the following table. Note that PATH reserves the right to modify this schedule as needed. All parties will be notified simultaneously of any changes through a modification posted on [Digital Square's website](#).

Release of Request for Application	October 17, 2023
Submission of fact-finding questions to msoc@path.org	October 24, 2023
All fact-finding Q&A posted	October 27, 2023
Applications due	November 14, 2023 by 5:00 p.m. EST
Applicants notified of decision	December 15, 2023
Funding Details	The budget for the overall RFA is USD \$600,000 for 1-2 awards for a six-month period (ending on July 31 st , 2024).

II. PATH Statement of Business

PATH is the leader in global health innovation. An international nonprofit organization, we save lives and improve health, especially among women and children. We accelerate innovation across five platforms—vaccines, drugs, diagnostics, devices, and system and service innovations—that harness our entrepreneurial insight, scientific and public health expertise, and passion for health equity. By mobilizing partners around the world, we take innovation to scale, working alongside countries primarily in Africa and Asia to tackle their greatest health needs. Together, we deliver measurable results that disrupt the cycle of poor health. Learn more at www.path.org.

III. Project Background

A. Project Background

In pursuit of our Mission: **connect health leaders with the resources necessary for digital transformation**, Digital Square offers a new way to invest in digital health—providing a space where countries and members of the global community can gather to think big and do good, together. By convening government officials, technological innovators, donor and implementation partners, and others across borders and boundaries in the Digital Square, we can grow possibility into reality by focusing on our common goal: **connecting the world for better health**.

Digital Square's work support three result areas:

1. **Alignment and Co-investment:** Digital Square helps to identify promising investment opportunities and provides operational support to streamline procurement.
2. **Global goods:** Digital Square promotes the development, adoption, and reuse of global goods, and helps increase their availability, adaptability, and maturity.
3. **Regional and Country Systems:** Digital Square helps elevate country priorities and strengthen regional and national capacity.

Digital Square is soliciting applications of qualified vendors or consortiums to develop a telemedicine/remote care product suite comprised of **existing open-source software components that provide a fully functional digital health system that meets well-defined requirements for a provision of remote care, and that is adaptable to meet the needs of multiple countries.** The product suite must be an **interoperable system that utilizes appropriate data exchange standards** for interoperability workflows. The product suite must be **shelf-ready**, i.e., quality-assured, testable, deployment ready, and having of a comprehensive set of documentation to support implementation.

The objective is to provide an integrated solution that enables patient-centered care by accessing telemedicine services, linking to universal health coverage (UHC)/social protection services and supporting/complementary services such as e-prescribing, e-pharmacy, laboratory, referrals, and community health services.

An example of an integrated solution is one that provides the ability for a client/patient to book and access an online consultation, be prescribed medication which can be paid for using mobile money and received via courier or collect it at their nearest pharmacy, whilst the claim is submitted electronically to health insurance providers.

Applicants must describe the patient user journey/s that their proposed solution would support to demonstrate the expected value and impact of this digital intervention.

This RFA is **not** intended to fund implementation activities. It is focused on enhancing and/or configuring existing software to create a digital health product suite for a telemedicine and remote care use case that demonstrates the potential to be **adapted for implementation in multiple countries.** However, **an application that can demonstrate how components of the product suite may be integrated with existing systems in operational use in an LMIC country as part of current initiatives, thereby demonstrating viability, is highly advantageous.**

Product suites are intended to address the problem of disparate digital systems by linking together existing tools and are modular by design to:

- Leverage existing infrastructure and tooling.
- Build on prior investments in digital health software products.
- Promote re-use and adoption in multiple contexts and/or across different countries.

By supporting the development of product suites that are responsive to country needs, Digital Square believes this will enable scaling up of interoperable digital systems and accelerate the implementation of standards-based architectures, leading to more effective and sustainable digital health systems and, ultimately, better healthcare.

Definition of a Product Suite

Digital Square defines product suites as **a configuration of open-source technologies and tools that are aligned to meet a functional health domain** (such as telemedicine services, primary care, immunization, antenatal care, neonatal care, etc.) **and support standards-based data exchange.** A product suite packages digital tools together and exchanges data through appropriate data exchange

patterns to achieve a desired set of functionality and outcomes. Product suites may leverage international guidance documents, such as the WHO Digital Adaptation Kits (DAKs), to frame the expected system-wide workflows, features and functional areas. Product suites must:

- Be comprised of Digital Square approved global goods and/or technologies that meet the [definition of a global good](#). All software components must be registered as a [Digital Public Good](#) or and meet the [DPG standard](#). All software components must be available under an [OSI-approved open-source license](#) or use this opportunity to become open source.
- Meet well-defined and documented functional and non-functional requirements to ensure all major functional areas are catered for and core non-functional needs are considered.
- Support appropriate standards-based data exchange to achieve a fully interoperable solution. Data exchange should be enabled through adherence to globally recognized standards, and with the Open Health Information Exchange (OpenHIE) specified workflows where relevant. Health Level Seven (HL7) Fast Healthcare Interoperability Resources ([FHIR](#)) is the preferred open standard and work on product suites should reference and contribute to the development of the WHO L3 work where appropriate. For supply chain systems, the use of the [GS1 standards](#) are preferred.
- Be aligned with the [WHO's SMART Guidelines](#) (Standards-based, Machine-readable, Adaptive, Requirements-based, and Testable). Ideally, the ultimate vision is that product suites should utilize Level Two (L2) (operational) and Level Three (L3) (machine readable) components to produce Level Four (L4) (executable) reference software.
- Include comprehensive up to date user and technical documentation that is available under an appropriate [Creative Commons license](#).
- Provide documented evidence of the quality assurance framework used and results of testing.

B. Proposed Project Timeline

PATH anticipates that subawards will begin upon signature and end by **July 31st, 2024**. As part of Digital Square's due diligence, we will conduct pre-award evaluations of all shortlisted candidates. In addition to project-specific deliverables based on individual scopes of work, PATH will require applicants to provide, at minimum, quarterly narrative and financial reports to support their work.

IV. Scope of Work and Deliverables

A. Scope of Work

The proposed solution is expected to address and encompass the following technical scope:

The primary output is a software product suite comprised of existing open source software components that will provide a fully functional digital solution that supports the provision of remote care utilizing telemedicine services and which may be adapted to meet the needs of multiple countries. Any software components must be either a recognized global good or they must meet the requirements to be a global good and a digital public good.

B. Deliverables

Software

The software must include:

- An open-source telemedicine system with the ability to integrate with additional open source software tools to support effective remote care in low-resource settings.
- A quality assurance framework and test suite to ensure safety and performance of the solution with documented evidence of test results. Tests should include unit tests for code, integration tests, functional tests to validate that features work as expected, and performance metrics. Tests

should comprise functional tests and automated tests (where automation is appropriate and feasible). These tests must clearly map back to the documented requirements and follow sound testing practices. The test suites must leverage the upcoming OpenHIE Testing Harness tool and approach to showcase the product suite's ability to fulfil the desired functionality, i.e., the tests showcasing the functionality of the tool must be able to be run on the same framework as the OpenHIE Testing Harness.

- A packaged solution that ensures ease of deployment, and that aligns with [Instant OpenHIE](#) where possible; with a particular focus on being packaged in deployable containers.
- Functionality that allows implementers to validate that the installation of all components can be successfully completed with the generation of an installation report for the purposes of Installation Qualification (IQ). The installation report must show evidence (e.g., screenshots) of the successful completion of each step taken to perform the installation.
- A completed [Digital Square Shelf-readiness assessment](#) with documented strategies to move to more mature stages in time.

Documentation

A comprehensive set of product suite documentation is required. Whilst existing materials can be used, this should not be a collection of existing documents for each tool, but instead a harmonized set of product documents using consistent terms and language to provide a seamless view of the overall workflow. This documentation must be in English, but it is highly advantageous if some or all documentation is also available in other languages (e.g., French, Portuguese).

#	Document	Intended audience
1	A product suite “brochure” that outlines the value proposition and provides a comprehensive overview of the main features and functions. This should be available in both printable document and presentation slide deck format.	High level decision makers (e.g., government leaders, donors, investors).
2	Requirements documentation detailing the functional, non-functional, informational, and interoperability requirements that the product suite supports. This documentation must follow the type of content and format of the WHO Digital Adaptation Kits.	Business and system analysts, data analysts.
3	Technical documentation that describes the technical architecture of the solution, including a context diagram that explains the system interactions.	Enterprise/system architects, systems analysts, developers, system integrators.
4	Technical documentation that describes how to deploy, configure, and validate the installed system. This must support an Installation Qualification (IQ) that provides documented evidence of a functioning infrastructure and successful installation deployment of all the solution software components.	Implementers (i.e., individuals/organizations who deploy the software solution and test that it is correctly installed) and ICT (i.e., individuals/organizations who are responsible for the power and connectivity infrastructure).
5	A set of detailed test cases that can be used to demonstrate compliance with the functional requirements. This should support an Operational Qualification (OQ) that provides documented evidence and assurance that the product suite functions as expected and produces consistent results. Test cases should preferably be written in Behavioral Driven Development (BDD) syntax for ease of reuse.	Implementers, quality assurance testers, development teams, and people responsible for completing user acceptance testing.
6	A set of documented test cases and evidence of conformance to relevant interoperability workflows.	Implementers, quality assurance testers, development teams, and system integrators.

7	User documentation that describes how to use the components of the product suite.	End users of the product suite.
8	Operational documentation that describes how to maintain and monitor the solution and provide first level support to end users on an operational basis.	System administrators, ICT support staff, end user support staff.
9	Description of the skills and competencies needed to: <ul style="list-style-type: none"> • Operate the solution (i.e., what skills must a system administrator require to keep the solution up and running). • Maintain the solution (e.g., to add new forms, to update schedules, to create a new report). • Add additional functionality (e.g., what skills must a developer have to be able to add a new feature or interoperate with a new application). 	Individuals/organizations responsible for human resource planning and recruitment.

Community engagement activities

The successful applicant will be expected to engage with the relevant open communities as appropriate and should describe any existing participation and a plan for further engagement. These may include the OpenHIE and the WHO SMART Guidelines communities.

V. Application Requirements - Cost

The budget for the overall RFA is US \$600,000. Digital Square aims to issue 1-2 awards for a six-month period (ending on July 31st, 2024). This figure is just an estimate provided for informational purposes to the applicants and is not binding.

Digital Square will evaluate the quoted prices and hourly rates. No analysis will be performed on quotes determined as non-responsive or if the technical quote is determined to be technically unacceptable. The price/business evaluation will be conducted in accordance with the quoted utility-based solution and proposed labor categories, their rates, and Evaluation Matrix. Digital Square will conduct an analysis to determine if all quoted prices are reasonable. This evaluation is conducted with the expectation of adequate price competition and will rely heavily on market forces to determine whether proposed prices are fair and reasonable. The comparison of proposed prices in response to this solicitation is the preferred and intended price analysis technique.

Digital Square will also compare the proposed prices to historical prices paid for the same or similar services and the independent government cost estimate. Other techniques and procedures may be used to ensure quoted prices are fair and reasonable. A cost realism analysis will be performed to determine whether the quoted Level of Effort is realistic for the work to be performed, reflects a clear understanding of the requirements and is consistent with the unique methods of performance set forth in the company's technical quote.

Required Elements

The Cost Application must include a budget narrative detailing the cost and cost basis applied in generating the application and describe the reasonableness of each proposed cost. The Cost Application must also include a detailed budget that is itemized among the cost categories defined below. This detailed budget should be submitted in an unlocked Excel spreadsheet and must include the following information:

- Personnel: at minimum the budget should detail all proposed staff/positions with daily rates and total number of days in total level of effort according to key staff.
- Itemization of all other costs (e.g., agency costs, service tax, administrative costs, supplies, etc.).

- Estimated schedule of other anticipated expenses (travel, subawardee resources, supplies, outside resources, etc.).
- Details of all subcontracting out of work, this includes proposed consultants as well as proposed subawardees.

The Cost Application shall begin with a summary budget detailing costs in the following categories (as applicable) - Price for six months.

Description	Total Cost (USD)
Personnel	
Fringe Benefits	
Travel	
Equipment	
Supplies	
Consultants	
Contractual	
Other Direct Costs	
Total Direct Costs	
Indirect Costs	
Total Project Costs	

Special Note on Prohibition on Certain Telecommunication and Video Surveillance Services or Equipment

Procurement of telecommunications or video surveillance equipment and services produced by Huawei Technologies Company, ZTE Corporation, Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, and Dahua Technology Company, or any other company, including affiliates and subsidiaries, owned or controlled by the People's Republic of China is strictly prohibited under this solicitation and applications will not be funded.

Special Note on Indirect Costs

Indirect costs are overhead expenses incurred as a result of the project but not easily identified with the project's activities. These are administrative expenses that are related to overall general operations and are shared among projects and/or functions. Examples include executive oversight, existing facilities costs, accounting, grants management, legal expenses, utilities, and technology support.

If your organization includes indirect costs in the budget, you must provide a Negotiated Indirect Cost Rate Agreement with the US Government or three years of audited financials to PATH to validate the use of this rate.

VI. Application Requirements - Technical

Provide a narrative on your technical approach to accomplish the Scope of Work and Deliverables as per section IV. The submitted proposal must follow the proposal template and is limited to **14 pages (excluding appendices)** and must include the following:

1. Two sentence overview

In two sentences, provide a description of your project for a nontechnical audience. Please describe: the goal(s) of the project; how the goal(s) will be achieved; and how your organization's expertise will contribute to achieving the project goal(s).

2. Executive summary

Describe in two to three paragraphs, for a nontechnical audience, the context under which this application or work plan is being submitted to Digital Square and the expected outcomes. Answer the following questions: • What will this investment from Digital Square specifically go toward? • What is/are the goal(s) of the project and how will they be achieved? • How will your organization's expertise contribute to achieving the project goal(s)? Does the project align with existing initiatives?

3. Consortium team

Describe in two to three paragraphs the composition of the consortium: In the first paragraph of this section, describe the prime organization, including the skill sets of the organization relative to the project. Include how the organization will lead/manage the work. In the second paragraph, identify supporting organizations. Include technical capabilities aligned with the activities for each organization, including knowledge and experience of interoperability standards and software quality assurance practices. This should also reference any previous experience related to telemedicine systems. Also, include the profile of organization's relevant qualifications, and how capabilities will augment the prime organization.

4. Project description

Describe the project idea in further detail. If you have phases or objective areas in your project, outline those in the project description. Subsections within the project description should include:

- I. Background or problem statement. Put the project/work within the larger context. Detail relevant background information necessary for a third party to understand. Include the current level of development / maturity of the software components of the proposed product suite.
- II. Patient journey / Use cases. Describe the patient journey/s that the proposed solution will support to explain the expected value and impact of this digital intervention.
- III. A detailed work plan with all activities and associated timelines, divided into clear work packages. Please describe dependencies, if any, between work packages.
- IV. A detailed description of the overall solution design, including:
 - a. Architectural overview of the product suite components and interoperability workflows.

- b. Description of each software component/ tool, including license type, technical stack and links to open source repositories.
- c. Description of the quality assurance framework that will be used to test the product suite.
- d. A description of all documentation that will be produced and where it will be made available.
- e. A description of the competencies required to:
 - i. Operate the solution (e.g., what skills must a system administrator require to keep the solution up and running).
 - ii. Maintain the solution (e.g., to add new forms, to update configurations, to create a new report).
 - iii. Add additional functionality (e.g., what skills must a developer have to be able to add a new feature or interoperate with a new application)

5. Risk mitigation

Are there potential obstacles or risks? Describe the mitigation plan to overcome them.

6. Qualifications and experience

- I. Past performance information sheets demonstrating
 - a. Profile of relevant corporate qualifications.
 - b. Profile of relevant experience and examples of related work.
 - c. Applicants may provide any information on awards or certifications.
- II. Staffing plan accompanied by Curriculum Vitae (CV) for key technical positions in accordance with the Cost Application personnel requirements, including specific position titles and the approximate level of must for each position.
 - a. A complete and current resume must be submitted for each key personnel position, detailing the requisite qualifications and experience of the individual. Qualifications, experience, and skills shall be placed in chronological order starting with the most recent information and include a list of certifications possessed by each key technical personnel.
- III. Annual revenue. If your company has more than one location, please indicate these qualifications for the site that is responding, including the number of years in business.

VII. Additional Attachments, optional

- 1. Third-tier Subawardee Agreements, Contracts or Commitment. Offerors may submit any agreements, contracts, or commitments it has with any potential third tier- subawardee.

VIII. Application Evaluation Criteria

The application will follow a two-stage evaluation. The first stage will be a shortlisting of the applications based on proposals submitted and associated documentation; the second round will comprise a solution presentation to the evaluation committee by the shortlisted applicants. A combination of the first-round scores and the presentation scores will be utilized to make the final decision.

The following is a list of significant criteria against which the application will be assessed.

Area	Points
Technical	50
Clarity, level of detail and relevance to project for the following aspects: <ul style="list-style-type: none"> 1. Summary and problem statement 2. Patient journey 3. Workplan 4. Solution design including quality assurance 5. Documentation 	

6. Sustainability & risk management	
Organization and team experience	25
1. Experience with open source software 2. Experience with common health standards including HL7 FHIR 3. Experience in telemedicine and remote care 4. Experience in grant management	
Cost	25
1. Costs as detailed in section VI.	

Note: PATH reserves the right to include additional criteria.

IX. Instructions and Deadlines for Responding

A. PATH contacts

Program Contact: Maria Soc (msoc@path.org)

Procurement Contact: Teresa Gingras (tgingras@path.org)

Technical Lead Contact: Carl Fourie (cfourie@path.org)

B. Applications Due:

Completed applications should be submitted via [WizeHive](#).

All applications must be entered into the WizeHive platform. Any questions related to the platform should be addressed to Maria Soc: msoc@path.org. The process for submission is as follows:

- Navigate to the [submission portal](#) and click “Sign Up” or “Log In.”
- Once logged in, click “Create a Profile to Get Started.” This step must be completed before you can proceed with the application.
- Click the “Get Started” box (marked with a “+”).
- You can now access and edit all required forms.
- All forms can be saved in draft prior to submission.
- Once both required forms are completed, the “Submit” button will be green and clickable. Once submitted, forms cannot be edited.

We advise that you pay close attention to upload instructions for file types. We will not accept responsibility for resolving technical transmission problems with applications.

C. B) Submission of Questions and Answers

Please submit questions by October 24, 2023, to Maria Soc (msoc@path.org). All responses will be posted to Digital Square sites with notifications to applicants by October 27, 2023.

D. Conclusion of Process

Applicants will be notified of the decision by December 15, 2023. Final award is subject to the terms and conditions included in this solicitation, as well as successful final negotiations of all applicable terms and conditions affecting this work.

X. Terms and Conditions of the Solicitation

A. Notice of non-binding solicitation

PATH reserves the right to reject any and all bids received in response to this solicitation and is in no way bound to accept any application. The applications submitted through this RFA process are the responsibility of the submitter and do not necessarily reflect the views of the United States Agency for International Development (USAID), the United States Government, or PATH.

B. Confidentiality

All information provided by PATH as part of this solicitation must be treated as confidential. In the event that any information is inappropriately released, PATH will seek appropriate remedies as allowed. Applications, discussions, and all information received in response to this solicitation will be held as strictly confidential, except as otherwise noted.

C. Conflict of interest disclosure

Suppliers bidding on PATH business must disclose, to the procurement contact listed in the RFA, any actual or potential conflicts of interest. Conflicts of interest could be present if; there is a personal relationship with a PATH staff member that constitutes a significant financial interest, board memberships, other employment, and ownership or rights in intellectual property that may be in conflict with the supplier's obligations to PATH. Suppliers and PATH are protected when actual or perceived conflicts of interest are disclosed. When necessary, PATH will create a management plan that provides mitigation of potential risks presented by the disclosed conflict of interest.

D. Communication

All communications regarding this solicitation shall be directed to appropriate parties at PATH indicated in Section IX. A. Contacting third parties involved in the project, the review panel, or any other party may be considered a conflict of interest and could result in disqualification of the application.

E. Acceptance

Acceptance of an application does not imply acceptance of its terms and conditions. PATH reserves the option to negotiate on the final terms and conditions. We additionally reserve the right to negotiate the substance of the finalists' applications, as well as the option of accepting partial components of an application if appropriate.

F. Right to final negotiations

PATH reserves the option to negotiate on the final costs and final scope of work, and also reserves the option to limit or include third parties at PATH's sole and full discretion in such negotiations.

G. Third-party limitations

PATH does not represent, warrant, or act as an agent for any third party as a result of this solicitation. This solicitation does not authorize any third party to bind or commit PATH in any way without our express written consent.

H. Application Validity

Applications submitted under this request shall be valid for 90 days from the date the application is due. The validity period shall be stated in the application submitted to PATH.