REQUEST FOR PROPOSALS

Title of Consulting Services:

Bhutan Healthcare Mobile Application for Project for Strengthening Government Capacity for Using Digital Technology and Data

Date: April 19, 2024

Accenture Japan Ltd

Subject: Request for Proposal

Reference Title: Bhutan Healthcare Mobile Application for Project for Strengthening Government Capacity for Using Digital Technology and Data

Date: April 19th, 2024

Attention: Related Company and Agency

Accenture Japan Ltd now invites proposals to provide the following Application service for Project for Strengthening Government Capacity for Using Digital Technology and Data. More details of the services are provided in the Terms of Reference.

The RFP includes the following documents.

Section 1 - Summary Sheet of the Instruction

Section 2 - Technical Proposal Forms

Section 3 - Financial Proposal Forms

Section 4 - Terms of Reference (TOR)

Following list is Document Attachments with the TOR

Serial Number	Description	Purpose	Document name
01	RFP (this document)	To provide overall understanding	00_ APP_RFPV1.0
02	APP TOR	To provide overall highlight	01_App_TOR_V1.0_(JICA_BhutanDX)
03	Bhutan Digital Healthcare To be Journey As of MARCH 2024	Image of application	02_Bhutan Digital Healthcare_To be Journey_V1.0_(JICA_BhutanDX)
04	(Reference image)- App Function Requirements	Functions that applications need to have	03_01_FunctionalList_Draft Data Category of Data Bank_V1.0_(JICA_BhutanDX) with Sheet "Step and Data_ToBe"
		Data that Application need to communicate	03_02_FunctionalList_Draft Data Category of Data Bank_V1.0_(JICA_BhutanDX) Sheet "Step and Function List"
05	(Reference image)- App	Working hours and basic requirements	04_App Non-Functional Requirements (Reference DHP) V1.0_(JICA_BhutanDX)

	Function Requirements		
	Supplement Document of DHP Non-Functional Requirements	Working hours and basic requirements of DHP	04_Suppliment document_ DHP Requirement Definition Documentv1.0_20230727
06	API guideline	Guideline when connecting data with DHP	05_API Usage Guideline DHP Connect_V1.0_(JICA_BhutanDX)
07	Proposal Submission sample format	Forms to create the proposal and financial document	06_Proposal Submission Sample forms
08	Sample of Accenture Japan Ltd contract format	For the contract negotiation phase	07_Sample of Accenture Japan Ltd contract format_Subcontract agreement_ver0.01

Table 1: Document Attachments with the TOR

Contents

Section 1: Summary Sheet of the Instruction to App Vendor

1.	**Name of the assignment**	Application development for Project for Strengthening Government Capacity for Using Digital Technology and Data.
2.	**Method of selection**	QBS (Quality Based Selection) = As long as the financial proposal is within the estimated budget, those who had the highest score of the proposal wins.
3.	**In charge**	Accenture Japan Ltd Address: 1-8-1 Akasaka Minato-ku Tokyo 107-8672, Japan E-mail: JICA-Bhutan-Project-for-APP-Business-Contest2024@accenture.com
4.	**Pre-explanation session**	A Proposal Conference will be held: Yes **Please register here in this website if you are interested on this proposal and whether you wish to attend pre-explanation session:** Link - https://forms.office.com/r/GXviRZshdG QR Code - Date: Friday, April 26th, 2024 Time: will be announced to those registered Content: registration for interest of this RFP, pre-explanation session Location: Bhutan government Govtech Office, Hall A
5.	**Type of contract**	**Lump-Sum (paid all together) at the final payment at the end of the contract**
6.	**Estimated Maximum Budget**	Per use-case is with a cap of approx. 41,800 USD. 1 (use-case) ※ ≈41,800 USD Max 3 use case ≈ 125,400 USD

	In Other words, 1 Use case ($418,00USD) includes the development of any one of use-case A/B/C (details on TOR Section 3.1, 3.5 and 4). For the 3 use-case means those who wish to do development in one application, all three use-cases A/B/C (details on TOR Section 3.1, 3.5 and 4). Note: This is a reference price for the financial proposal. If the estimated price differs significantly, please review the specifications to ensure that the scope is accurate and that no unnecessary buffers have been added.	
7.	**Deadline of request for clarification**	**Date:** April 23rd, 2024 **Time:** 9:00 AM (Bhutan time)
8.	**Expected date for Response to the Clarification**	**Date:** May 8th, 2024
9.	**Proposal submission deadline**	**Date:** May 15th, 2024 **Time:** 1:00 PM (Bhutan time)
10.	**Proposal submission**	By email **Accenture Japan Ltd Contact Person** **JICA-Bhutan-Project-for-APP-Business-Contest2024@accenture.com**
11.	**Presentation by bidder (Business contest)**	May 22nd, 2024
12.	**Expected date for the first negotiations with winners**	May 27th – June 7th ,2024 - The contract signing with maximum three winners may take from June – July 2024
13.	**Expected duration of contract**	August 2024 – September 2025

A. General Provisions

1. Introduction

1.1   App vendors are invited to submit a Technical Proposal together with a Financial Proposal for consulting services required for the assignment (hereinafter called the "Proposal").   The

Proposal will be the basis for negotiating and ultimately signing the Contract with the selected App vendors.

B. Preparation of Proposals

2. General Considerations

In preparing the Proposal, it is expected to examine the Request for Proposal (hereinafter called the "RFP") in detail.

Material deficiencies in providing the information requested in the RFP may result in rejection of the Proposal.

3. Cost of Preparation of Proposal

Those proposing shall bear all costs associated with the preparation and submission of its Proposal, and Accenture Japan Ltd shall not be responsible or liable for those costs, regardless of the conduct or outcome of the selection process.

Accenture Japan Ltd is not bound to accept any proposal and reserves the right to annul the selection process at any time prior to award, without thereby incurring any liability.

4. Language

The Proposal, as well as all correspondence and documents relating to the Proposal exchanged between the App vendor (those writing proposal) and Accenture Japan Ltd, **shall be written in English.**

5. Documents Comprising the Proposal

The Proposal shall comprise the documents and forms listed below;

1st Inner Envelope with the Technical Proposal:

a. TECH-1
b. TECH-2
c. TECH-3
d. TECH-4
e. TECH-5
f. TECH-6

2nd Inner Envelope with the Financial Proposal:

(1) FIN-1

(2) FIN-2

6. Only One Proposal

The App vendor (including the individual members of any Joint Venture) shall submit only one Proposal, either in its own name or as part of a Joint Venture in another Proposal.

7. Proposal Validity

Proposal must remain valid for 30 calendar days after the Proposal submission deadline.

8. Clarification and Amendment of RFP

App vendor may request a clarification of any part of the RFP no later than April 24th, 2024.

Any request for clarification must be submitted through the following website (on question #7):

Link - https://forms.office.com/r/GXviRZshdG

QR Code -

Accenture Japan Ltd will respond in writing or announce through Bhutan government website by May 8, 2024. Should Accenture Japan Ltd deem it necessary to amend the RFP as a result of a clarification, it shall do so following the procedure described below;

(1) At any time before the proposal submission deadline, Accenture Japan Ltd may amend the RFP by issuing an amendment in writing or by standard electronic means. The amendment shall be sent to all attendees of the meetings as well as posted on the Bhutan government GovTech website.

(2) If the amendment is substantial, Accenture Japan Ltd may extend the proposal submission deadline to give reasonable time to take an amendment into account in their Proposals.

9. Technical Proposal Format and Content

9.1 The Technical Proposal shall not include any financial information. A Technical Proposal containing financial details shall be declared non-responsive.

9.2 It is required to submit a Technical Proposal using the standard forms provided in **Section 2: Technical Proposal Forms**.

10. Financial Proposals	10.1 The Financial Proposal shall be prepared using the provided in **Section 3. Financial Proposal Forms**. It shall list all costs associated with the assignment, including (a) remuneration, (b) reimbursable expenses indicated in the Financial Proposal Forms.
	10.2 It is responsible for meeting all tax liabilities arising out of the Contract.
	10.3 It shall express the price for its Services in **United States dollar (USD)**

C. Submission, Opening and Evaluation

11. Submission, Sealing, and Marking of Proposals	11.1 The Consultant shall submit a signed and complete Proposal comprising the documents and forms in accordance with Clause 5 (Documents Comprising Proposal). The submission can be done **by E-mail.**
	11.2 Any modifications, revisions, interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Proposal.
	B. Submission of the Proposal by e-mail:
	11.3 The signed Proposal shall be sent to the address to Accenture Japan Ltd email (**JICA-Bhutan-Project-for-APP-Business-Contest2024@accenture.com**) in following three steps:
	Step 1. Submission of Technical and Financial Proposal, in separate files in PDF format protected with a different password for each document.
	Step 2. The consultant shall send a password for the Technical Proposal in a <u>separate e-mail</u>. The password <u>only for the Technical Proposal</u> shall be submitted.
	Step 3. After the evaluation of the Technical Proposal, which is planned to be conducted between May 15th - May 22nd, 2024, Accenture will then request a password to access the Financial Proposal, only to the Consultant(s) that pass the Business Contest on May 22nd, 2024.

11.4 The Proposal must be sent to the address and received by Accenture Japan Ltd no later than the deadline indicated in **Section 1. Summary Sheet of the Instruction to Consultants**, or any extension to this deadline. Any Proposal received by Accenture Japan Ltd after the deadline may be declared late and rejected, and promptly returned unopened.

12. Confidentiality

12.1 From the time the Proposals are opened to the time the Contract is awarded, App vendor should not contact Accenture Japan Ltd on any matter related to its Technical and/or Financial Proposal. Information relating to the evaluation of Proposals and award recommendations shall not be disclosed to any other party not officially concerned with the process, until the publication of the Contract award information.

13. Proposals Evaluation

13.1 The evaluators of the Technical Proposals shall have no access to the Financial Proposals until the technical evaluation is concluded.

13.2 The App vendor is not permitted to alter or modify its Proposal in any way after the proposal submission deadline. While evaluating the Proposals, Accenture Japan Ltd will conduct the evaluation solely on the basis of the submitted Proposals.

14. Evaluation of Technical Proposals

14.1 Accenture Japan Ltd shall evaluate the Technical Proposals on the basis of their responsiveness to the TOR and the RFP, applying the evaluation criteria, sub-criteria, and point system described in TOR;

14.2 Each responsive Proposal will be given a technical score (S_t). A Proposal shall be rejected at this stage if it does not respond to important aspects of the RFP or if it fails to achieve the minimum technical score required to pass:70

15. Correction of Errors

15.1 Activities and items described in the Technical Proposal but not priced in the Financial Proposal, shall be assumed to be included in the prices of other activities or items, and no corrections are made to the Financial Proposal.

a. Lump-Sum Contracts

15.2 If a Lump-sum Contract form is included in the RFP, deemed to have included all prices in the Financial Proposal, so neither arithmetical corrections nor price adjustments shall be made.

16. Taxes

Financial Proposal shall include taxes and duties in Bhutan.

D. Negotiations and Award

17. Negotiations   The negotiations will be held shortly after notification to successful/unsuccessful consultant(s) with the successful Consultant's representative(s).

[Technical negotiations]

17.1   The negotiations include discussions of the Terms of Reference (TOR), the proposed methodology, Accenture's inputs, the Conditions of the Contract. These discussions shall not substantially alter the original scope of services under the TOR or the terms of the contract, in order that the quality of the final product, its price, or the relevance of the initial evaluation may not be affected.

[Financial negotiations]

17.2   The financial negotiations will reflect the agreed technical modifications in the cost of the services.

17.3   The financial negotiations will, as necessary, include remuneration rate and quantities of items of reimbursable expenses that may be increased or decreased from the relevant amounts shown in the Financial Proposal but without significant alterations.

18. Conclusion of Negotiations

18.1   The negotiations are concluded with a review of the finalized draft Contract, which then shall be initialed by Accenture Japan Ltd and the authorized representative of selected App vendor.

18.2   If the negotiations fail, Accenture Japan Ltd shall terminate the negotiations informing the reasons for doing so and will invite the next-ranked App vendor to negotiate a Contract.

19. Award of Contract

19.1   After completing the negotiations Accenture Japan Ltd shall award the Contract to the selected Consultant and promptly notify the other shortlisted Consultants. Technical Proposals of those consultants who were unsuccessful shall be disposed.

Section 2. Technical Proposal Forms

Checklist of Required Forms

Please look at sample forms on different attachments

Total page limit for content for #3 is 25 pages and total number of #1-5 should be less than 50 pages.

Content	Description	Page Limit
1	Technical Proposal Submission Form	N/A
2	Company Organization and Experience	N/A
3	Description - Implementation Approach, Methodology - Work Plan for Performing the Assignment - Technical Capabilities	25 pages
4	Work Schedule and Planning for Deliverables	N/A
5	Experience and Capability of members Curriculum Vitae (CV) for Key Experts	N/A
Total		50 pages

Figure 1: Outline of Criteria

Samples of what qualifications and experiences are appreciated.

Organization Composition	Required Qualification & Experiences	Expected Outcome in the PoC
Technical App Developers	● The Ability to develop the app interfaces customized for use-case A, B, C (either one or all)	● A Health service App integrating health data from IoT devices and BP monitor. ● Presenting health data
Maintenance Support	● Ability to provide bug-fixes and maintenance support after the app development in Bhutan	● Showcasing plan for maintenance support either via setting up a local team or by accepting collaboration with a local vendor
Industry Experience	● Health-service app development experience with at least 2 clients to showcase understanding of the healthcare industry, health data security, and domain expertise	● Past case studies or applications developed
Health data security and confidentiality	● Compliance certifications such as those related to ISO 27001 or Health data security certifications	● Proof of certification or compliance
Project management and communication	● Roles and responsibilities of both the client and the vendor. ● Communication channels and frequency of updates. ● Issue resolution and escalation procedures	-

Section 3: Financial Proposal Forms

Financial Proposal Forms shall be used for the preparation of the Financial Proposal according to the instructions provided previously.

Please refer to:

FIN-1   Financial Proposal Submission Form

FIN-2   Breakdown of Remuneration, Reimbursable Expenses and Indirect Local Tax Estimates

Note:

  Per use-case is with a cap of approx. 41,800 USD

  Max 3 use case bundle type ≈ 125,400 USD

In Other words, 1 Use case ($41,800USD) includes the development of any one of use-case A/B/C (details on TOR Section 3.1, 3.5 and 4).

For the 3 use-case bundle means those who wish to do development all three use-cases A/B/C at once (details on TOR Section 3.1, 3.5 and 4).

This is a reference price for the financial proposal. If the estimated price differs significantly, please review the specifications to ensure that the scope is accurate and that no unnecessary buffers have been added.

Section 4: Terms of Reference (TOR)

Bhutan Healthcare Mobile Application for Project for Strengthening Government Capacity for Using Digital Technology and Data

1. Executive Summary of App Business Requirements

Application Development Proof of Concept (PoC), in a nutshell will be as follows:

【Role & Responsibility 】

Topics	Details	Reference within Section 3 and 4
● **What is the Role & Responsibility**	✓ Selected APP vendor is responsible on creating "Pilot Activity Report" which is report after conducting the PoC of the created Application. ✓ Accenture Japan Ltd will be the contractor and will check the final report provided by APP vendor. ✓ Bhutan government will be responsible on the check of application.	3.1
● **What is the expected scope of PoC**	✓ Use cases A, B, C You can pick and choose which ones, or all	4.2.1

【Contract scheme 】

Topics	Details	Reference within Section 3
● **What is the contract scheme?**	✓ Maximum 3 companies are selected which is one for each use-case have one company (use-case A, B, C.). ✓ If one vendor showcases and wins in all three use-cases, only one may be chosen. ✓ Contract scheme will be discussed with Accenture Japan Ltd after the business contest.	3.2

● **Geographic preferences**	✓ If international vendors without local coverage in Bhutan, then joint venture with Bhutan local vendors would be recommended. (Vendors do not need to look for local vendors specifically unless they already have a partnership)	3.2

【Evaluation Method& Criteria】

Topics	Details	Timeline	Reference within Section 3
● **What is the Evaluation Method**	✓ Through two methods ● Proposal 80% weightage ● Business contest presentation 20% weightage	Proposal May 15th, 2024 Presentation 22nd, May, 2024	3.3

● **What are the Criteria for proposal**	- For the proposal criteria, 4 categories will be looked at:
	①Company experience
	
	②Implementation Approach and Methodology
	- Please make sure to explain how "Step and Function list" functions could be realized in the application.
	- In addition, proposals incorporating:
	  ➢ Experience with AWS, as the DHP that you're connecting though API is built in AWS
	  ➢ How you plan to support and conduct maintenance plan
	  ➢ Supporting Evidence-Based Policy Making (EBPM)
	  ➢ Customization to local Bhutan context such as language (Base has to be English but additional such as Dzongkha as option)
	  ➢ Additional AI features
	  will receive additional points.
	
	③Technical Capabilities as company
	
	④Experience and capability of members.
		-	3.3

● **Who is responsible for the judgement of proposal and business contest presentation?**	✓ Proposal: Accenture, JICA, Bhutan Government ✓ Presentation: 50 members Accenture, JICA, Bhutan Government and the invited guests. Guests such as Hospitals, Medical Universities, International Organizations such as WHO, UNICEF, UNDP and UNFPA who will participate in offline voting and other Bhutanese Citizens can choose to join online as observers		3.3

【Deliverables】

Topics	Details	Timeline	Reference within Section 3
● **Deliverables**	**Submit of Final Deliverable (September 2025) which is "Pilot Activity Report" for each use-cases A, B, C**	**September 30th, 2025**	3.4

【Schedule】

Topics	Details	Timeline	Reference within Section 3
● **What is the overall timeline?**	(1) Proposal and Final presentation at business contest (2) Contract Procedures with winners (3) App development (4) PoC of App (5) **Submit of Final Deliverable (September 2025) which is "Pilot Activity Report"**	(1) Proposal: May 15th, 2024 proposal Presentation: May 22nd. 2024 presentation (2) June-July 2024 (3) August 2024-December 2024 (4) January-May2025 (5) September 2025	3.5

【Payment and Financial Cap】

Topics	Details	Timeline	Section 3
● **Payment terms**	✓ Payment Condition: Submit of Final Deliverable (September 2025) which is "Pilot Activity Report". Then	Based on contract discussions	3.6

	it can be paid in 30days after the invoice is given. ✓ Accenture Japan Ltd will have certain type of report format and provide along with that report format.		
● **cap of approx.**	Specification 1 (use-case) ≈41,800 USD In other words, 1 use case +1 PoC ≈41,800 USD 3 use case + 3 PoC ≈ 125,400 USD		3.6

2. Introduction and overview

This project was mentioned in "State of the Nation" in December 2022 as "Four Banks Project." The four banks (medical, health, biobank, and household) project is being jointly initiated by the health and information ministries with support from JICA. The project is expected to strengthen digital health technology capacity and data to attract medical and pharmaceutical researchers, engage private companies and investors, develop new health-tech services and devices, and accelerate data collection by the business entities and domestic private companies. **This TOR is for selecting Application vendor building the "health bank" within the four-bank project.**
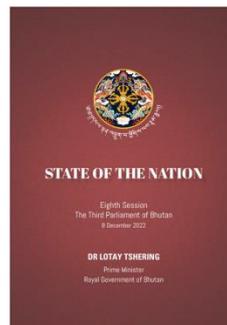

Figure 2 State of the Nation mention

JICA has been discussing with the government of Bhutan regarding the possibility of utilizing digital technology and data in the healthcare sector, one of the nine components of GNH (Gross National Happiness), through the "Information Collection and Verification Study on Digital Promotion Policy Support" (hereinafter referred to as the "Priority Survey") and other activities. Specifically, the government of Bhutan expressed its desire to improve the quality of medical care by providing accurate, evidence-based treatment, and to promote private-sector healthcare-related industries and create job opportunities through the sharing of medical and health data (hereafter, "health data" unless otherwise specified) by creating an environment that promotes integrated management and utilization of such data.

Based on this, the Government of Bhutan has expressed its desire to solve health issues such as the prevention of non-communicable diseases, especially "Hypertension" which have been on the increase in recent years, and to reduce bloated medical costs by creating an environment that promotes integrated management and utilization of health data, as well as to promote innovation in health-related services to create new economic opportunities, and to link these to the improvement of GNH.

The project was requested with the aim of linking these efforts to the improvement of GNH. This project aims to improve and expand the quality of healthcare services in Bhutan based on the concept of a data utilization infrastructure, and to promote industrial development through the accumulation of an environment that encourages integrated management and data utilization of healthcare and health data, and the study of government and private sector services that make use of such data. This will contribute to the improvement of the quality and expansion of healthcare services and the promotion of industry based on the concept of data utilization infrastructure, thereby contributing to the improvement of the level of Gross National Happiness.

The project is looking for Application developer via the Business contest in Bhutan, who have app development experience in addition to experience of working with Royal Government of Bhutan. "The Bhutan Healthcare Mobile Application" is required to be developed to integrate patient health data from health devices so that the government can perform disease specific analysis and policies.

This project aims to select one company for each use-cases (A, B, C). Please refer to the details in TOR below.

After the completion of the application development and PoC phase, the Bhutan government intends to integrate this application with the national platform.
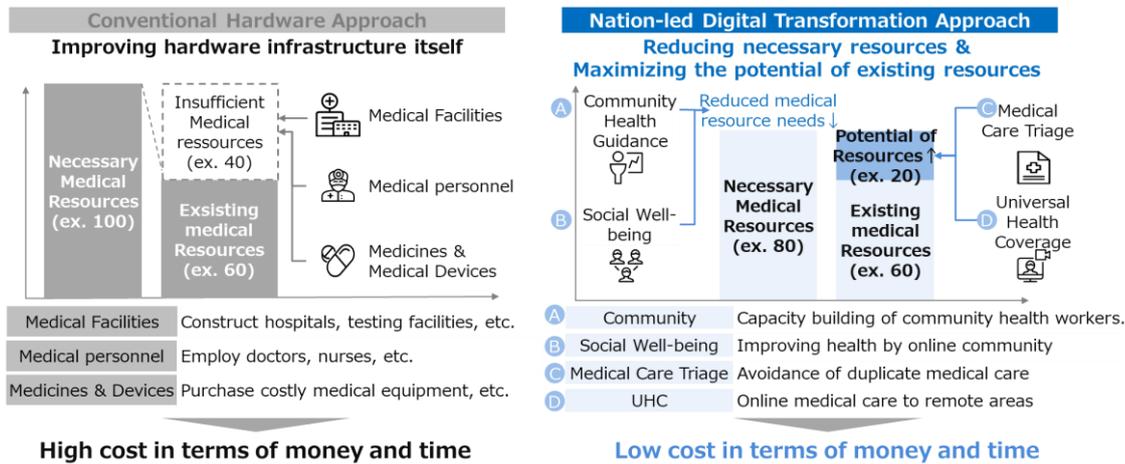

Figure 3: Overall goal of Nation led Digital Transformation Approach

Digital Architecture

As shown on below, within the "Data (Four Banks)" layer, Health Bank is on this project and on section of "service" and "Application" that shows use case 1(A), 2(B), 3(C) is the part we are looking for.
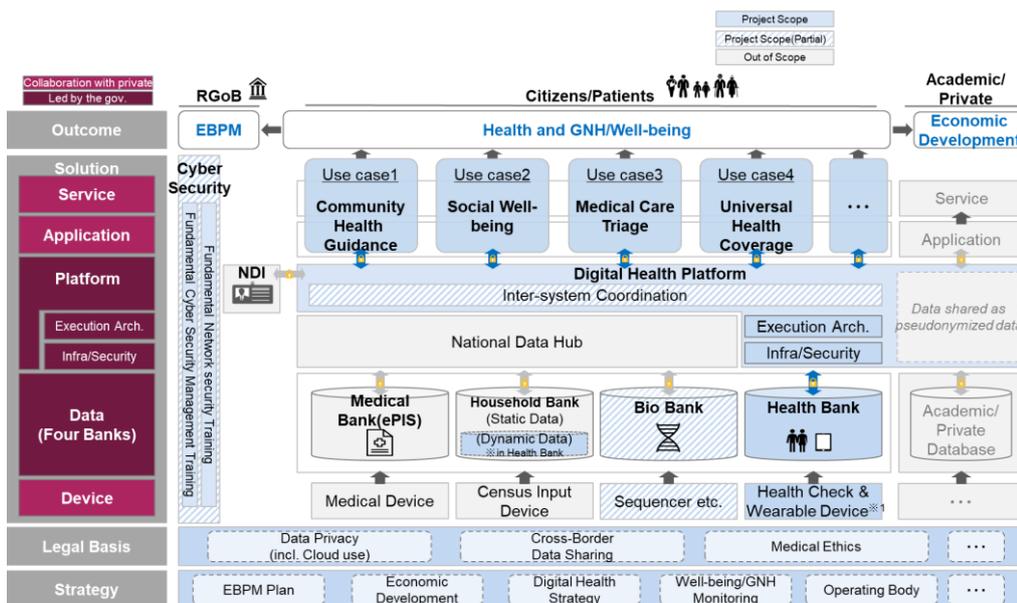

Figure 4: Digital Architecture Overview

Current Project phase

This contract phase will be (G) PoC Implementation phase on "Health App PoC". August 2024 to September 2025. After this phase, RGoB hopes to take over the "Full= scale development of APP" , which is after this contract.
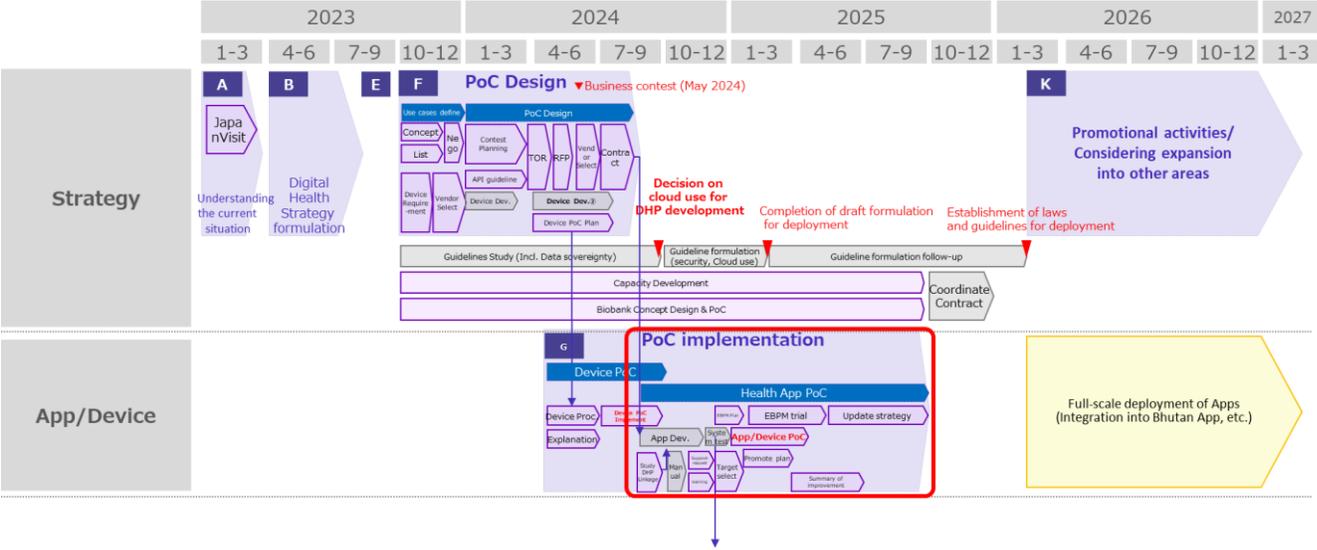

Figure 5 Overall Timeline

3. App Business Requirements

Below mentioned To-be image defines the scope of App Service PoC in terms of Identified use-cases for Bhutan and the in charges of system contributions.
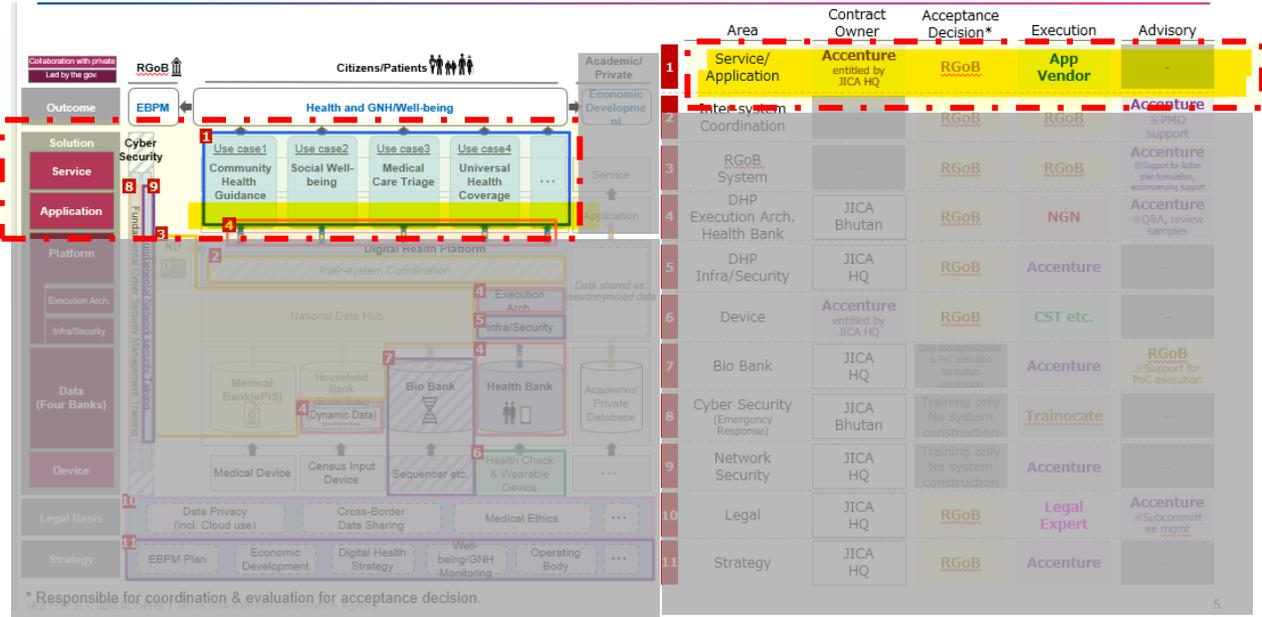

Figure 6 Future image of DHP functions and related systems

3.1 Role and Responsibility
✓ **App Development and Completion** – Responsibility of the App Vendor

- Interim – Deliverable (Application)

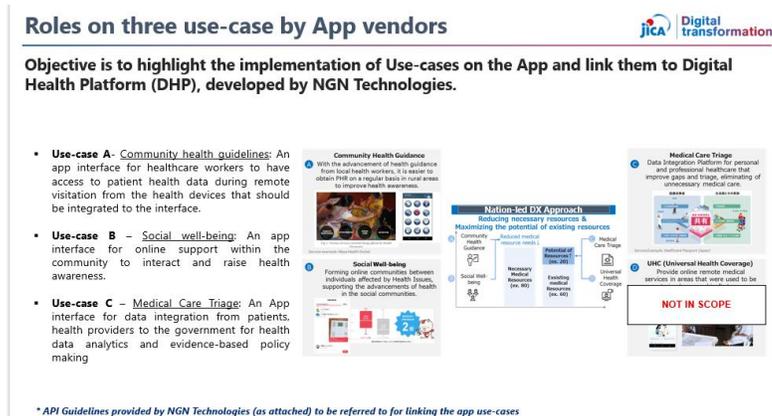 - Development of each use case applications (Use-case A, B C)

Figure 7 Use-case A, B, C

- Final Deliverable (Pilot activity report)

  - Preparation/delivery of the "Pilot activity report"

✓ **Judgement of the App fitment for Bhutan** –Bhutan Government

- Check the APP vendor output on "Interim Deliverable (Application)" and is responsible on completion and evaluation of applications.
- Consideration for full-scale development of applications in future

✓ **Output report submission review by** – Accenture Japan Ltd entitled by JICA HQ

- Contractor with APP vendor
- Check the APP vendor output on "final deliverable (Pilot activity report)" and submission to JICA

Figure 8 Role and Responsibility (App vendor, Accenture Japan Ltd, RGoB)

Intellectual property (IP)

- Applications, etc. developed for implementation shall be handled as "Interim – Deliverable (Application)", and the rights, such as ownership, copyrights, and use rights of transfer to the Bhutan government will be discussed during contract phase.
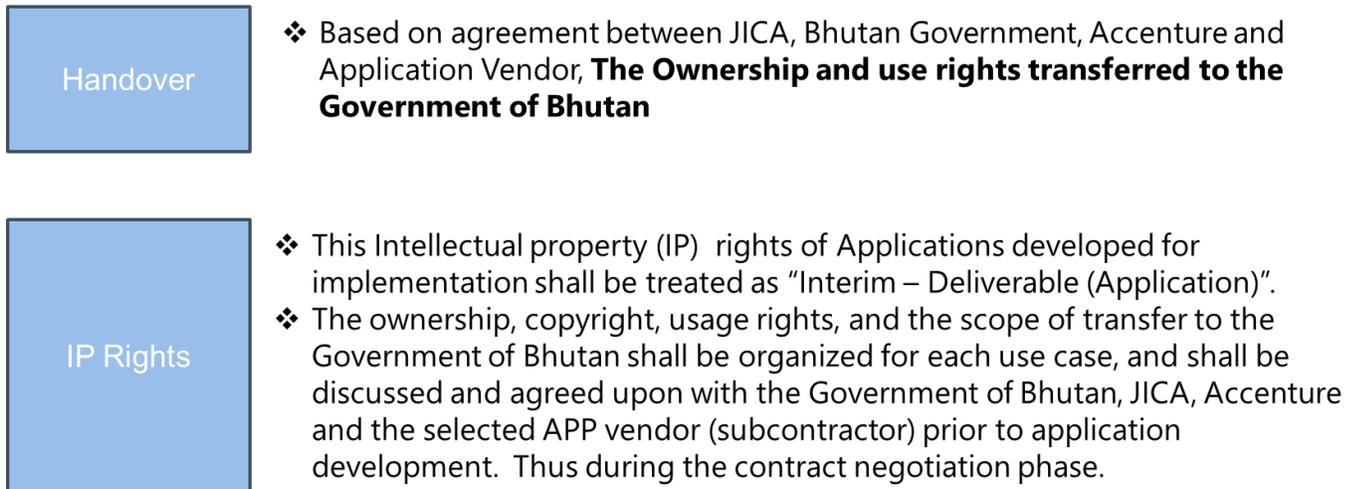
Handover	❖ Based on agreement between JICA, Bhutan Government, Accenture and Application Vendor, **The Ownership and use rights transferred to the Government of Bhutan**
IP Rights	❖ This Intellectual property (IP) rights of Applications developed for implementation shall be treated as "Interim – Deliverable (Application)". ❖ The ownership, copyright, usage rights, and the scope of transfer to the Government of Bhutan shall be organized for each use case, and shall be discussed and agreed upon with the Government of Bhutan, JICA, Accenture and the selected APP vendor (subcontractor) prior to application development. Thus during the contract negotiation phase.

Figure 9 IP rights

3.2 Contract Scheme

✓ Maximum 3 company is selected which is one for each use-case have one company (use-case A, B, C.).

✓ If one vendor showcases and wins in all three use-cases, only one may be chosen.

Contract scheme will be discussed with Accenture Japan Ltd after the business contest.
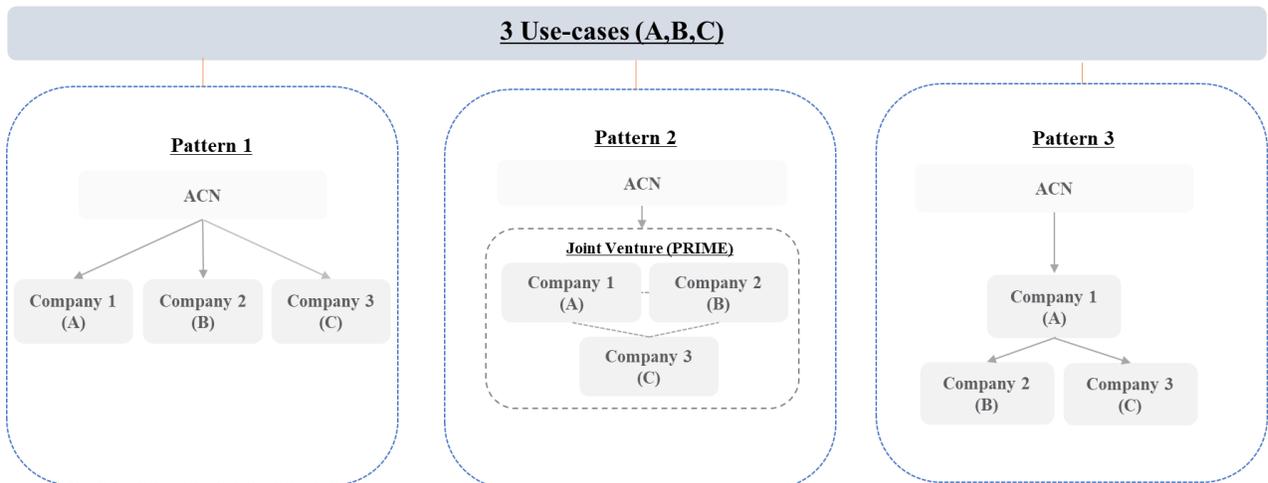
Local company can also be company A,B or C if they have the capabilities to develop.
International company prefer to have a local partner or presence.

Figure 10 Contract scheme

Please note that the contract scheme will be discussed with Accenture after the business contest.

Contest Winning and Contract Scheme *(After the winner is announced)*

Winning Schemes example
- **Maximum companies allowed:** up to three companies may be selected.

- **Single company dominance:** if one company excels in all areas it use-case(secures victories in all three use-cases) it could be procured with one company. There maybe a chance second-place option might be considered.

Contacting Scheme

❖ If **international vendors are without local coverage** in Bhutan, then **joint venture with Bhutan local vendors** would be recommended
(Vendors do not need to look for local vendors specifically unless they already have a partnership)

❖ International vendors: **Local subcontracting and evaluation** (utilizing local human resources to be considered)
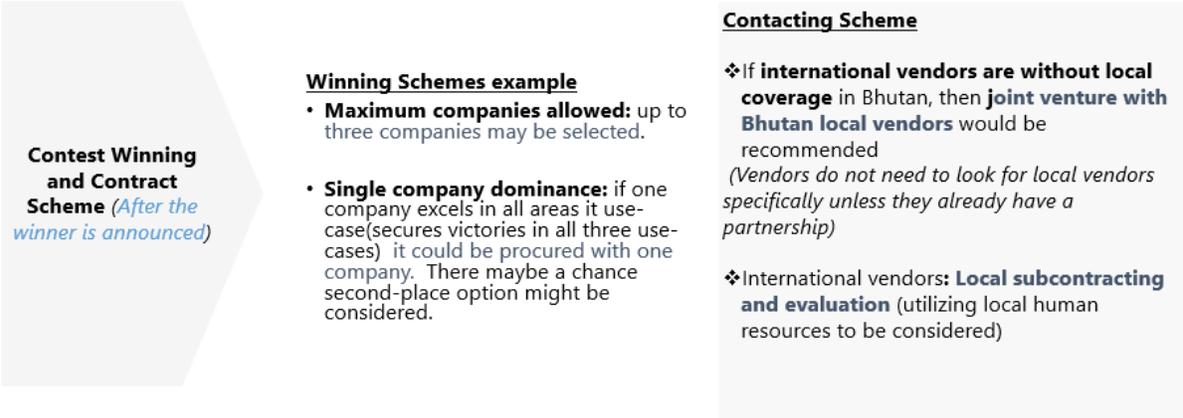
Figure 11 Maximum companies allowed

3.3 Evaluation Method& Criteria

3.3.1   Proposal Evaluation Method

There are two aspects on evaluation criteria on selecting the APP vendor which is, (1) Proposal which worth 80% and (2) Presentation which worth 20%.

Weightage

Result Announcement

1. PROPOSAL DOCUMENT

✓ Proposal word document

80% weightage for the proposal word document

Submit 1 week BEFORE the Business Contest date

Announce later date after the business contest

2. PRESENTATION

✓ PowerPoint presentation for Live Presentation of applicable use-cases
✓ Existing APP DEMO is (OPTIONAL)

20% weightage for the presentation and demo

On the day of Business contest

Figure 12 Evaluation Method

3.3.2 Proposal Document Evaluation Criteria

There are 4 categories for evaluation criteria for proposal, (1) Company experience, (2) Implementation Approach and Methodology, (3) Technical Capabilities as company (4) Experience and capability of members. In addition, within (2) Implementation Approach and Methodology, extra points will be given if

- ✓ How you plan to support and conduct maintenance plan
- ✓ Supporting Evidence-Based Policy Making (EBPM),
- ✓ customization to local Bhutan context such as language (Base has to be English but additional such as Dzongkha as option)
- ✓ Additional AI features

	Topics		Outline of Criteria for proposal	Points
1	Company Experience		① A record of projects and its adequacy for the assignment by the firm ② Volume of Relevant Information ③ Experience of Vendor (Global and in Bhutan)	• **10 points**
2	Implementation Approach and Methodology		① Basic Requirements /understanding on use-case by presenting what APP can do ② Study of Policy & Plan (know Bhutan government's policy that is relevant) ③ Adequacy of Step-by-Step plans / methodology presented in flow of APP & Plan of PoC ④ Concreteness of Schedule & deliverables stated clearly ⑤ Handover details of method timeline, will be considered as added value ⑥ Has Customization to local Bhutan context such as language ⑦ Evaluation consideration of use-case AI and supportive EBPM（Evidence Based Policy Making) analysis capability is included on as plus aspect	• **50 points**
3	Technical Capabilities as Company		① Proficiency in Technology(AWS cloud setup, API connection) ② Development Platform Compliance ③ Regulation & Security Standards Compliance ④ Platform Scalability (Data management size is considered?) ⑤ Testing & Quality Assurance Procedures & Schedule ⑥ Support & Maintenance	• **20 points**
4	Experience and Capability of Members		① Relevant Skills and Professional Credentials（Creating APP & conducting PoC) ② Evaluation of vendor's approach to adequately manage resource and assignment of personnels ③ Educational Qualifications	• **20 points**

Figure 13 Proposal Criteria

Proposal is due on May 15th 2024.

Note: Each responsive Proposal will be given a technical score (St). A Proposal shall be rejected at this stage if it does not respond to important aspects of the RFP or if it fails to achieve the minimum technical score required to pass:70

3.3.3   Presentation on Business Contest

Business Contest Content:
- **Date**: 22nd May, Wednesday   (8:30 AM- 17:00 PM)
- **Location**: MoH Conference Hall, 3rd Floor, Thimphu, Bhutan
- **Presentation style:**
  - ✓ Presentation Time – 10 Min per use-case
    If your company is proposing for all three use-cases, its total of 30min of presentation. You can choose if you want to present all together or divide your presentation into three sections. Please make sure to note how you would like to present on your proposal. The winners will be selected for each use case individually)
  - ✓ Presentation material
    - Live Presentation (less than **15 slides of PPT)**
    - Existing APP DEMO is (OPTIONAL)
- **Presentation content:**
  - ✓ Content
    - Company Overview (1 slide)
    - Content of proposal (less than 10 slides)
      The main Content within the proposal should focus on "Implementation Approach and Methodology" (explaining how your application can realize the use-case, flow of application, time schedule and PoC Plan)
    - Technical Capabilities (1-2 slides)
    - Capabilities of members showing team structure (1 -2 slides)

    Note: In the presentation, please ensure to emphasize the following points:
    - (2) How can application **contribute to pain-points** for health professionals?
    - (3) How does the application i**mprove well-being and health** of people in Bhutan?
    - (4) How is your proposed application **unique**?
    - (5) Show your consent forms you hope to design to ensure the data will be used on right manner.
      Note: In charge of the "consent forms" will be designed and created under DHP by NGN. However, as its important aspect for citizen, as well as to maintain the design of User Interface (UI) and User Experience(UX) of the usability of the application, please provide the design image on the proposal.
    - (6) It is beneficial to mention following capability or experience
  - ✓ Experience with AWS, as the DHP that you're connecting though API is built in AWS
  - ✓ How you plan to support and conduct maintenance plan
  - ✓ Supporting Evidence-Based Policy Making (EBPM),
  - ✓ Customization to local Bhutan context such as language (Base has to be English but additional such as Dzongkha as option)
  - ✓ Additional AI features

    - For **international vendor**, kindly share how you plan to collaborate with the local vendor. What parts will be assigned to local and what parts will be handled by the international entity.

Note: Presentation material submission will be asked once we know your proposal did pass "minimum technical score required to pass:70"

- Time schedules of the day of Business contest (tentative):

Activity	Time
Reception and registration	8:30 AM onwards
Introduction	9:30 AM
Use-case A Presentation	10:00 AM-11:40 AM
Lunch Buffet	11:40 AM - 12:40PM
Use-case B Presentation	12:40-14:20
Use-case C Presentation	14:20-16:00
Cultural Performance/Speech	16:00-16:30
Result Announcement	16:30-17:00

3.3.4   Judgement of proposal and business contest presentation
● Proposal: Accenture Japan Ltd, JICA, Bhutan Government
● Presentation: Accenture Japan Ltd, JICA, Bhutan Government and the invited guests.
   Guests such as Hospitals, Medical Universities, International Organizations such as WHO, UNICEF, UNDP and UNFPA who will participate in offline voting and other Bhutanese Citizens can choose to join online as observers.
   Please be advised that this business contest will be recorded for documentation and public relations purposes. If you prefer not to be photographed, kindly designate a representative presenter who consents to being recorded.

3.4 Final Deliverable
Contract duration is expected to be August 2024 to September 2025. Payment can be done once the final deliverable "Pilot Activity Report" is submitted, and payment completed next month. However, payment aspect could be negotiated during the contract phase.

Payment condition

- **Submit of Final Deliverable (September 2025) which is "Pilot Activity Report". Then it can be paid in 30days after the invoice is given. Accenture will have certain type of report format and provide along with that report format**

On the attach of report includes (examples):
(1) Details on how Health Bank application (Interim –Deliverables) is used (manual)
(2) What was result during PoC (Conducted in Jan 2025-April 2025)
(3) Summary of improvement needed (to consider integration with Bhutan government APP as next steps)

Figure 14 Deliverables

3.5 Schedule

		Scope	
August – November 2024	APP Development	Application development is expected for use-case A, B, C	"Interim – Deliverable (Application)"
November 2024	APP User Manual	App user manual for Bhutan government, health workers, and citizen who uses the APP	
December 2024	System test	Create scenario and conduct test to connection test through DHP before the APP PoC Implementation.	
January 2025	Application PoC Small scale	Revision on APP based on system test and conduct PoC with 100 people	
February – May 2025	Application PoC Large scale	Conduct large scale PoC with 3,000 people collection data of Blood pressures and general data	
May – September 2025	Pilot Activity Report and handed over documents	Create Final report on the result of the PoC	"Final Deliverable (Pilot activity report)"

Figure 15 App PoC Timelines

3.6 Payment and Financial Cap

<u>Lump-Sum (paid all together)</u> at the final payment at the end of the contract. Contact in USD.

Submit of Final Deliverable (September 2025) which is "Pilot Activity Report". Then it can be paid in 30days after the invoice is given. Accenture Japan Ltd will have certain type of report format and provide along with that report format.

Type of Organization	Engagement Period	Approximate Payment Budget
Application Development Firm	Around 13 Months (August 2024- September 2025)	**Approx cap of approx. 41,800 USD per use case**

Figure 16 Payment Method

Step 1 – Technical Proposal	• Judgement and Evaluation of Technical Proposal after the business contest and before checking the financial proposal
Step 2 – Financial Proposal	**Specification 1 (use-case)** ≈41,800 USD **In other words,** ▪ 1 use case *≈41,800 USD ▪ 3 use case ≈ 125,400 USD
Step 3 – Next Steps	If proposal within the budget: ▪ Further Contractual discussions ▪ Technical Discussions ▪ Setting up of regular review meetings

Figure 17 Financial Cap

1 Use case ($41,800) in Figure 14 includes the development of any one of use-case A/B/C (details on TOR Section 3.1, 3.5 and 4).

For the 3 use-case bundle means those who wish to do development all three use-cases A/B/C at once (details on TOR Section 3.1, 3.5 and 4).

4. Scope of Services

4.1 Objectives

The primary goal of this project is to execute a pilot implementation within the healthcare settings. Healthcare professionals such as doctors, nurses, and health assistants will be trained by candidates to use the Citizen Health Application to gather data from pre-selected and consented patients. The candidate will have to be responsible to orchestrate the end-to-end pilot implementation, managing the on-ground monitoring and support activities, and conducting surveys at the conclusion of the pilot.

4.2 Overall Taks

#	*Timeline*	*Content*	Scope	Reference documents
	August 2024- September 2025	Project Management	This is expected to be reported on weekly basis ✓ Overall schedule ✓ Team / responsibility chart ✓ Progress check sheet	None
4.2.1	August – November 2024	APP Development	Application development is expected for use-case A, B, C	- "Step and Function list" - "Step and Data_ToBe"
4.2.2	November 2024	APP User Manual	App user manual for Bhutan government, health workers, and citizen who uses the APP	
4.2.3	December 2024	System test	Create scenario and conduct test to connection test through DHP before the APP PoC Implementation.	- "API guideline" - "Step and Function list" - "Step and Data_ToBe"
4.2.4	January 2025	Application PoC Small scale	Revision on APP based on system test and conduct PoC with 100 people.	Explained in section 4.2.4
4.2.5	February – May 2025	Application PoC Large scale	Conduct large scale PoC with 3,000 people collection data of Blood pressures and general data Support Bhutan government, health workers, and citizen to use the application	Explained in section 4.2.5

| 4.2.6 | *May – September 2025* | Pilot Activity Report | Create Final report on the result of the PoC

-APP Pilot Activity Result & Analysis
- Details on the EBPM trial result
-Summary of improvement needed

-Handover documents | - "Pilot Activity Report" format will be given by Accenture Japan Ltd |

Note: For this Bhutan Healthcare Mobile Application, after the PoC phase, full-scale development including tasks such as improvements to PoC, maintenance services, easy health device integration, IoT integration would be required in addition to integration with the health bank. This is going to be led by Government of Bhutan. Depending on the result of the PoC, the company that did PoC could be selected for the **full-scale development of app (new contract between Government of Bhutan and App Vendor would be defined and Accenture Japan Ltd would not be involved).**

4.2.1 APP Development
The use case to be placed as an assumption for trial development and functional demonstration will be considered.

Use-case	Content	Relevant steps
Use-case A Community health guidelines	An app interface for healthcare workers to have access to patient health data during remote visitation from the health devices that should be integrated to the interface.	This is Step 1, Step 2 of the To be Journey.
Use-case B Social well-being	An app interface for online support within the community to interact and raise health awareness.	This is step 5 of the To be Journey.
Use-case C Medical Care Triage	An App interface for data integration from patients, health providers to the government for health data analytics and evidence-based policy making.	This is step 3,4,6,7, 9 of the To be Journey. Note: For Step 4: For Blood Pressure Monitor: Considering OMRON Automatic Blood Pressure Monitor HEM-7120, A&D Medical electronic blood pressure monitor UM-212BLE,

		Welch Allyn ProBP ™ 2000 Digital. For Wearable Device: Considering Fitbit Charge 6, Samsung Galaxys4 Classic, Amazfit Active, J-Style JC 2301B Smart Health Ring or Smartwatch developed by CST.

Please thoroughly read following three documents to create proposal for each use-case.
Documents:

1. (Reference image)- App Function Requirements
   - To-Be Journey: To understand what this app hopes to achieve.
   - Step and Function list: To understand what functions it needs.
   - Step and Data_ToBe: To understand what data that APP has to pull from.
2. (Reference image)- App Non-Function Requirements
   - App Non-Function Requirements: Usability and Accessibility, System expectation, Project delivery on testing method

Consent: Please make sure that the user category is citizen and professional (medical workers).
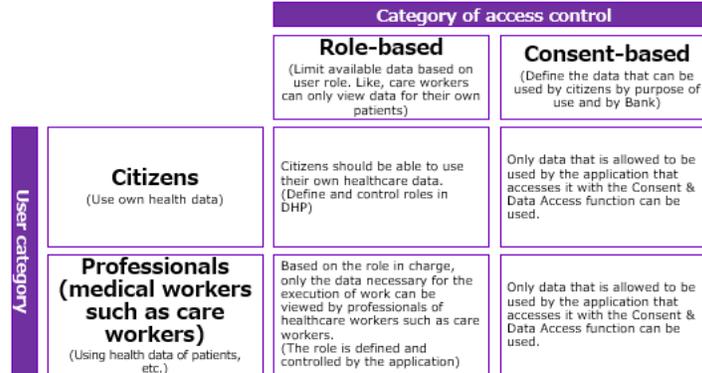
Figure 18: Use Category and Access Control

For citizen, it is vital to make sure that its opt-in where citizens consent for their data to be shared and have the choice of opt-out after registration (they can modify what data they would like to limit sharing)

Figure 19: Citizens opt in Consent Procedure

4.2.2   APP User Manual

- *For Health Workers/ medical professionals*
  - o   *how to use the application*
- *For citizen*
  - o   *how to use the application*
- ***For government officials***
  - o   ***how to manage the application***
  - o   ***Design:***
    - ▪   *Operational Definitions*
  - o   ***Operation plan:***
    - ▪   *Application Development Standards*
    - ▪   *Testing Approach*
  - o   ***Testing Approach & Result***
    - ▪   ***Construction/Unit testing***
    - ▪   *Result of*
      - ● ***Integration test***
      - ● *Security Test*
      - ● *Inter-System Linkage Test (APP)*
  - o   ***Suggestion Improvement Requirements Intake Adjustment***

4.2.3   System test

Please make sure to plan the test as clearly as possible and lead the APP system test.

-   Test date should be in Dec 2024.

Figure 20: Role and Responsibility of the Test

- ***System Connection Test (APP)***
  Due: 2024/12/31

  - o ***Test Scenarios***
  - o ***Test scripts***

S.No	Non-functional Requirements	Required in App Dev> (Yes/No)	Availability in DHP (Yes/No)	Details
10 **Matters related to testing**
10.1	Common Requirements for Testing Process (excluding acceptance testing)	**Yes**	Yes	• Testing scenarios to be included for use cases A,B,C. test schedules to be added and the same to be mentioned in the proposal schedule as well. • **Testing scenarios to be clearly stated on the methodology such as the mock app of android and iOS or through an online testing environment. The developed App should be usable for the PoC**
10.2	Test data requirements	**Yes**	Yes/No	• Mentioned under environment purpose - Use test data instead of production data in POC, Development and Verification environment
10.3	Test Environment Requirements	**Yes**	Yes	• Mentioned under environment requirements - POC environment, Development environment, verification environment, production requirement
10.4	Test Types	**Yes**	No	• Scenario (Business Pattern) • Performance testing at least prior to PoC, it should ensure it doesn't crash in less than 10 people simultaneously working. (Also, at the very least, it is necessary to confirm that the process will not be slowed down by the expected number of users at 3000 in the PoC).Interface test (number of data to be linked) for DHP test (Even if it is all in the API, is the data linked correctly?)）
10.5	Fundamental Testing Requirements	**Yes**	No	
10.6	Unit Testing Requirements	**Yes**	Yes	• Unit testing in development requirement
10.7	Coupled Testing Requirements	**Yes**	No	
10.8	Comprehensive testing requirements (including regression testing)	**Yes**	No	
10.9	Acceptance testing support requirements	**Yes**	No	• Since it will be used by the hospital in PoC, the procedure manual on the vendor side should be included • Once you've made it, how to use it

Figure 21:Expected type of Test

TOPICS	Points
Pattern	It should cover use-case A, B, C on the ones application vendor is assigned to.
Scenarios	Business patterns such as the to-be flow scenarios should be covered. Make sure to think about regular and irregular patterns too.
Data	Number of data on the data sheet should be covered
Logic	check the logic of your app if it works
Performance test	Make sure to plan and conduct performance test that can ensure the **(execution, connection, whether the simultaneous connections, load is bearable)**
Method	Testing scenarios to be clearly stated on the methodology such as the mock app of android and IoS or through an online testing environment. The developed App should be usable for the PoC

Figure 21: Points of Test

4.2.4 Application PoC Small scale
  The selected candidate will be required to facilitate the orchestration of the pilot implementation to handle on-ground monitoring and support activities as follows:

- **Cooperative Installation of Pilot Target Hospitals:** Conduct PoC outline, application device description, on-site training method, and request for cooperation in disseminating to monitoring targets to PoC stakeholders (MoH, Hospitals, etc.)
- **Field Training to NCD Focal Point (HAs, Nurses, etc.):** Conduct an explanation of the expected use case and how to use app/device (assuming a training / briefing session)
- **Selection of Target Audience and Explanation of Cooperation:** Agreement and explanation of monitoring targeted participants (citizens) and hospitals for approval and cooperation (i.e. consent, etc.)
- **Application PoC Implementation:**
  - Conduct Small-scale and Large-scale PoC Implementation
    - Small Scale PoC:
    - Duration: few weeks in Jan 2025
    - Target: 100 people (or less)
    - Location: all in Thimphu 3 locations (JDWNRH, THC, PHC (ORCs Included))

4.2.4 Application PoC Large scale
  The selected candidate will be required to facilitate the orchestration of the pilot implementation to handle on-ground monitoring and support activities as follows:

- **Cooperative Installation of Pilot Target Hospitals:** Conduct PoC outline, application device description, on-site training method, and request for cooperation in disseminating to monitoring targets to PoC stakeholders (MoH, Hospitals, etc.)
- **Field Training to NCD Focal Point (HAs, Nurses, etc.):** Conduct an explanation of the expected use case and how to use app/device (assuming a training / briefing session)
- **Selection of Target Audience and Explanation of Cooperation:** Agreement and explanation of monitoring targeted participants (citizens) and hospitals for approval and cooperation (i.e. consent, etc.)

  Conduct Large Scale PoC:

  - Duration: 2- 3 Months (Feb-May 2025)
  - Target: 3,000 people collection data of Blood pressures and general data
  - Location: all in Thimphu 3 locations (JDWNRH, THC, PHC (ORCs Included)
- **Data Analysis and Findings:** Conduct patient satisfaction survey and analyze outcomes with improvement points from survey.
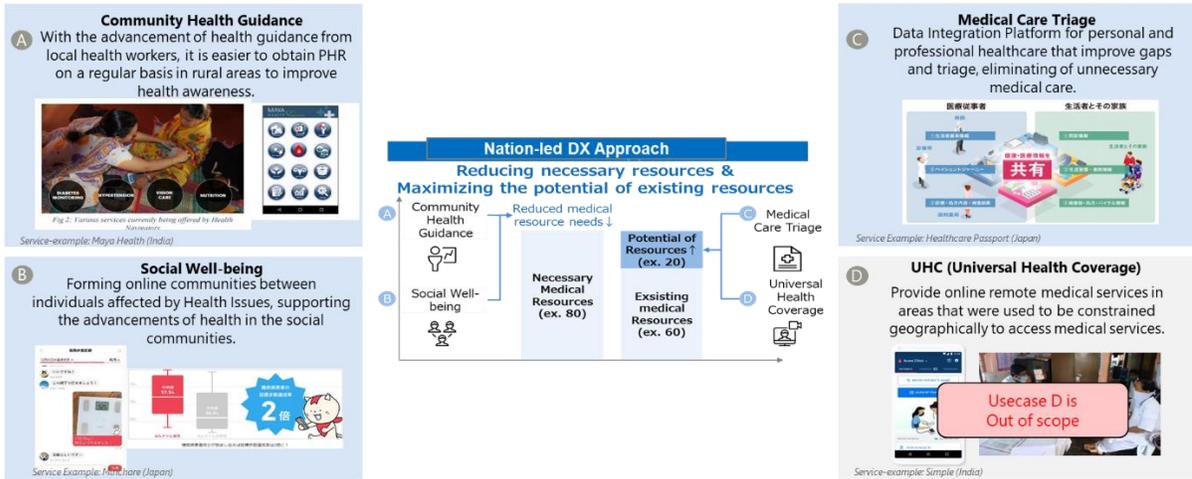
(Refercen) Use-case image details:

Figure 22: Use-case Image Details

Image 3 – Use-cases for Bhutan

Use-case A- Community health guidelines: An app interface for healthcare workers to have access to patient health data during remote visitation from the health devices that should be integrated to the interface.

Use-case B – Social -well-being: An app interface for online support within the community to interact and raise health awareness.

Use-case C – Medical Care Triage: An App interface for data integration from patients, health providers to the government for health data analytics and evidence-based policy making.

4.6 To-Be journey

As-is vs to-be **expectations of the app development scope defined in the images below.**

Please see the details on Attachment "To-Be Journey" that includes app image

Figure 23: As-is Vs To-be

As-is situation defined current paint points of Bhutan Healthcare system and To-Be state defines the solutions to counter those respective paint points through the 4 identified use-cases.
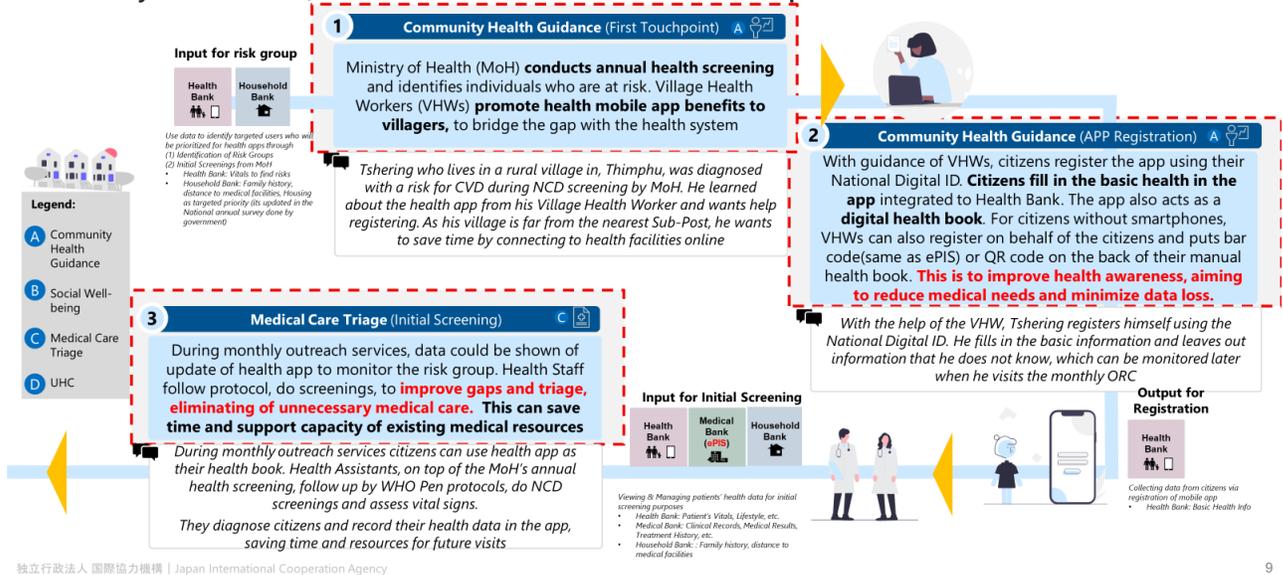
Figure 24: To-be Journey (1/3)

The above image highlights the flow of information in the To-Be Journey starting from the "First Touchpoint" in the Use-case A i.e., community health guidance. Followed by App registration by the patients. For citizens who do not use the smartphones, VHW can register on behalf of the patients. This is followed by the initial screening where the is integrated into a platform that can be used by government as well.
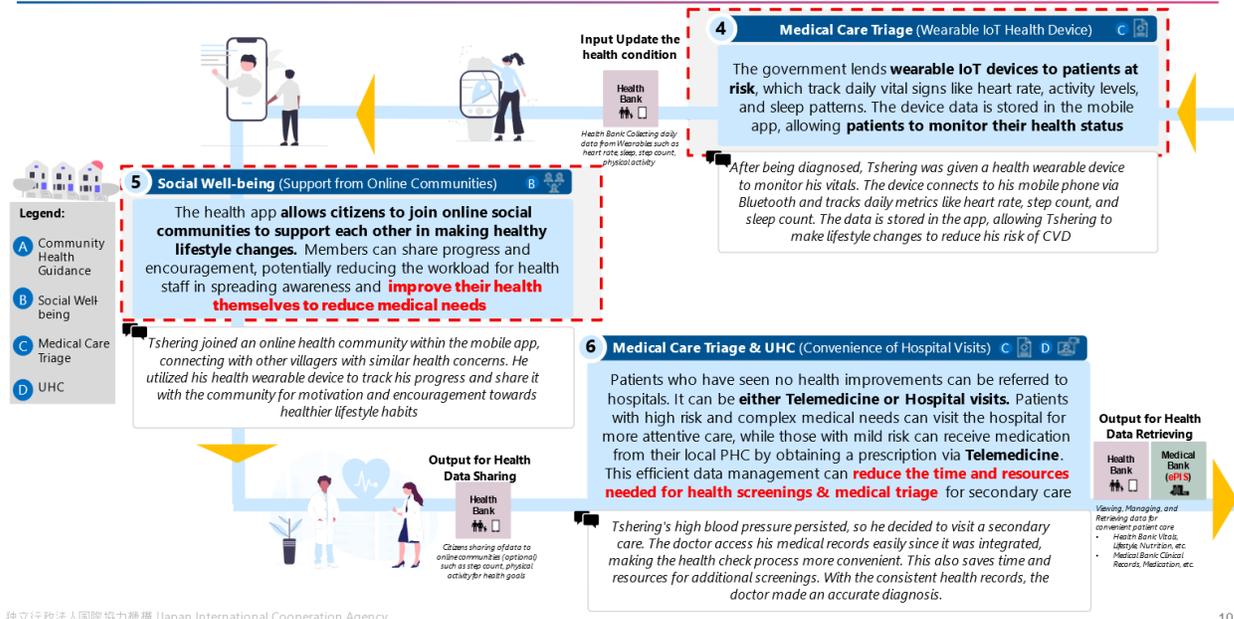
Figure 25: To-be Journey (2/3)

The above image highlights the health data input from the wearable IoT devices which are lend by the government to patients at high-risk. The health app further allows citizen to have access to an online community to encourage a healthy lifestyle by mutually creating awareness of health and nutrition etc.

To-be Journey (3/3)
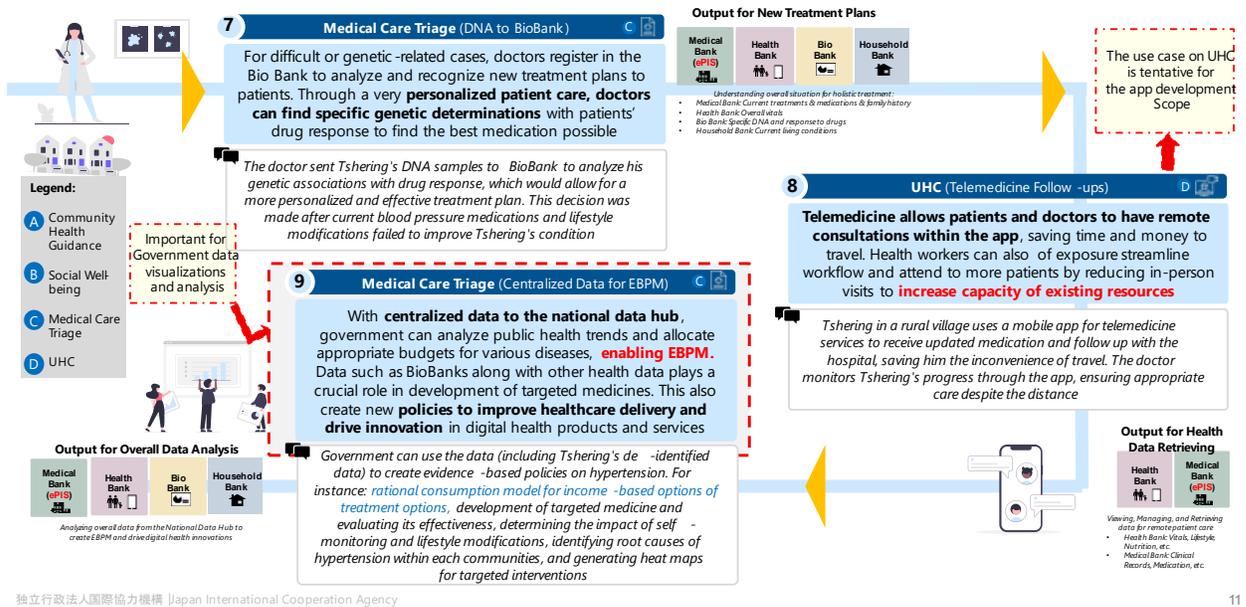
Figure 26: To-be Journey (3/3)

Digital Health Use Cases

The Digital Health will provide and monitor services to the vast range of groups. However, for the use-case, there are priority "High Risk Groups" within Hypertension and identifying them is important. As well as, we will have

High Risk Groups

There are prioritized "High Risk group" of hypertension. However, we will monitor vast range of groups

Blood pressure	• Blood pressure Mid o High is Hypertension and those are high risk
Risk Factors	• Has more than 2 risk factors such as, over 40 years old, overweigh, bad diet, lack of exercise, alcohol, stress, drugs, chronic conditions, genetic

Priority Use-case environment

We would like to prioritized following three aspects for use-case group

Location	• Lives relatively far from hospitals. More than 10 km away from hospitals (Urban and Rural areas)
Frequency	• High frequent visitation group to the hospitals
Tech Saviness	• Use mobile day-to-day but only at basic level

※Risk Factors includes : overweigh, bad diet, lack of exercise, alcohol, stress, drugs, chronic conditions, over 40 years old, genetic

Figure 27: Digital Health Use Cases

The hypertension patients based on the health data collected, would be categorized into high risk groups based on the priority identified through location, frequency and tech savviness (as described in the image above).

Figure 28: Stakeholder's To-Be Journey

Data to-be used.

Below mentioned data source is the health app which will be used by both citizens and healthcare providers.

- o

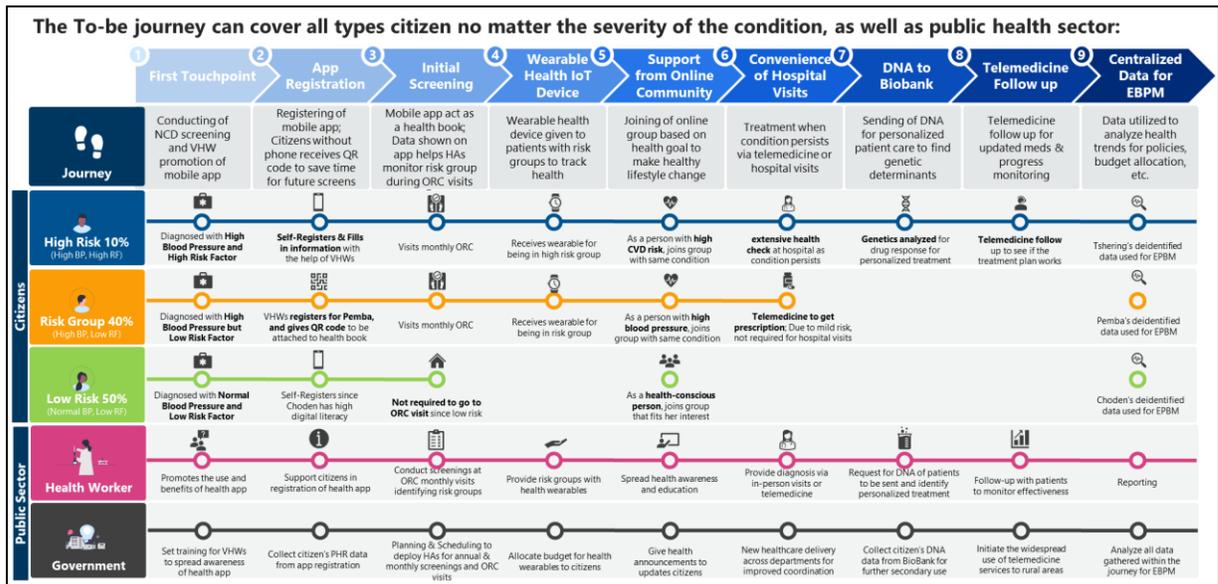| Data Points	Location	Data Source	From Whom
CID	NDI Wallet	NDI Wallet (from Civil Registration?)	Citizen
DHP ID	DHP	Health Bank	Citizen
HB ID	Health Bank	Health Bank	Citizen
UHID	Medical Bank	Medical Bank	Citizen
HHID	Household Bank	Health Bank	Citizen
BBID (Out of scope)	Biobank	N/A	
Consent Management	DHP	DHP (from Digital Health App)	Citizen
Number of registered app users	Digital Health App	Digital Health App DB	App
Daily Active Users (DAU)	Digital Health App	Digital Health App DB	App
Full Name	NDI Wallet	NDI Wallet (from Civil Registration?)	Citizen
Sex/Gender	NDI Wallet	NDI Wallet (from Civil Registration?)	Citizen
Date of Birth	NDI Wallet	NDI Wallet (from Civil Registration?)	Citizen
Mobile Phone number	Digital Health App	Digital Health App	Citizen
Address (Permanent)	NDI Wallet	NDI Wallet (from Civil Registration?)	Citizen
Address (Resident/Current)	Digital Health App	Digital Health App	Citizen
Consent Management	DHP	DHP (from Digital Health App)	Citizen
Current Disease (Diagnosis)	Medical Bank	Medical Bank	Healthcare Providers
Current Disease (Diagnosis)	Medical Bank	Medical Bank	Healthcare Providers
Medication / Prescription	Medical Bank	Medical Bank	Healthcare Providers
Family History	Medical Bank	Medical Bank	Healthcare Providers
Weight (Static)	Medical Bank	Medical Bank	Healthcare Providers
Weight (Static)	Household Bank	Household Bank (Annual Health Survey, MoH)	Healthcare Providers
Weight (Dynamic)	Health Bank	Health Bank (from Digital Health App)	Citizen/Healthcare Providers

Height (Static)	Medical Bank	Medical Bank	Healthcare Providers
Height (Static)	Household Bank	Household Bank (Annual Health Survey, MoH)	Healthcare Providers
Height (Dynamic)	Health Bank	Health Bank (from Digital Health App)	Citizen
BMI (Static)	Medical Bank	Medical Bank	Healthcare Providers
BMI (Static)	Household Bank	Household Bank (Annual Health Survey, MoH)	Healthcare Providers
BMI (Dynamic)	Health Bank	Health Bank (from Digital Health App)	App
Blood Pressure (Systolic(mmHg)) (Static)	Household Bank	Household Bank (Annual Health Survey, MoH)	Healthcare Providers
Blood Pressure (Systolic(mmHg)) (Dynamic)	Health Bank	Health Bank (from BP monitor via Digital Health App)	Healthcare Providers
Blood Pressure (Systolic(mmHg))(Static)	Medical Bank	Medical Bank	Healthcare Providers
Blood Pressure (Diastolic(mmHg)) (Dynamic)	Health Bank	Health Bank (from BP monitor via Digital Health App)	Healthcare Providers
Blood Pressure (Diastolic(mmHg))(Static)	Medical Bank	Medical Bank	Healthcare Providers
Heart Rate (Dynamic)	Health Bank	Health Bank (from Wearable device)	Healthcare Providers
Blood test result (LDL Cholesterol)	Medical Bank	Medical Bank	Healthcare Providers
Blood test result (Cholesterol = 5 mmol/L or >= 190 mg/dl (%))	Medical Bank	Medical Bank	Healthcare Providers
Blood test result (Cholesterol = 5 mmol/L or >= 190 mg/dl (%))	Household Bank	Household Bank (Annual Health Survey, MoH)	Healthcare Providers
Blood test result (hemoglobin A1C - HbA1c)	Medical Bank	Medical Bank	Healthcare Providers
Blood test result (Blood Sugar Fasting & Control Rate)	Medical Bank	Medical Bank	Healthcare Providers
Blood test result (Blood Sugar Fasting & Control Rate)	Household Bank	Household Bank (Annual Health Survey, MoH)	Healthcare Providers

Blood test result (Blood Glucose rate)	Medical Bank	Medical Bank	Healthcare Providers
Blood test result (γ-GTP)	Medical Bank	Medical Bank	Healthcare Providers
Blood test result (Creatinine)	Medical Bank	Medical Bank	Healthcare Providers
CVD Risk Level (Static)	Household Bank	Household Bank (Annual Health Survey, MoH)	Healthcare Providers
CVD Risk Level (Dynamic)	Health Bank	Digital Health App DB	App
Step Count	Health Bank	Health Bank (from Wearable device)	Citizen
Physical activity (Calorie)	Health Bank	Health Bank (from Wearable device)	Citizen
Sleeping hours (Option)	Health Bank	Health Bank (from Wearable device)	Citizen
Physical activity self-assessment (Physical Activeness Assessment)	Health Bank	Health Bank (from push notice QA of Digital Health App)	Citizen
Alcohol self-assessment (Alcohol Assessment)	Health Bank	Health Bank (from push notice QA of Digital Health App)	Citizen
Cigarettes self-assessment (Tobacco)	Health Bank	Health Bank (from push notice QA of Digital Health App)	Citizen
Nutritional self-assessment (salt intake, vegetable intake, and Doma Pani consumption) (Nutrition Asessment) (Doma)	Health Bank	Health Bank (from push notice QA of Digital Health App)	Citizen
Nutritional self-assessment (salt intake, vegetable intake, and Doma Pani consumption) (Nutrition Asessment) (Salt)	Health Bank	Health Bank (from push notice QA of Digital Health App)	Citizen
Nutritional self-assessment (salt intake, vegetable intake, and Doma Pani consumption) (Nutrition Asessment) (Vegetable)	Health Bank	Health Bank (from push notice QA of Digital Health App)	Citizen
Dynamic Household Bank assessment (GNH-1: Health Barriers)	Health Bank	Health Bank (from push notice QA of Digital Health App)	Citizen

Dynamic Household Bank assessment (GNH-2: Community Vitality)	Health Bank	Health Bank (from push notice QA of Digital Health App)	Citizen
Dynamic Household Bank assessment (GNH-3: Psychological Wellbeing)	Health Bank	Health Bank (from push notice QA of Digital Health App)	Citizen
Dynamic Household Bank assessment (GNH-4: Healthy Days)	Health Bank	Health Bank (from push notice QA of Digital Health App)	Citizen
Dynamic Household Bank assessment (GNH-5: Health Assessment)	Health Bank	Health Bank (from push notice QA of Digital Health App)	Citizen
Static Household Data ((GNH-1: Health Barriers))	Household Bank	Household Bank (GNH survey)	Healthcare Providers
Static Household Data (GNH-2: Community Vitality)	Household Bank	Household Bank (GNH survey)	Healthcare Providers
Static Household Data (GNH-3: Psychological Wellbeing)	Household Bank	Household Bank (GNH survey)	Healthcare Providers
Static Household Data (GNH-4: Healthy Days)	Household Bank	Household Bank (GNH survey)	Healthcare Providers
Static Household Data (GNH-5 Health Assessment)	Household Bank	Household Bank (GNH survey)	Healthcare Providers

Housing Conditions	Health Bank	Original: Household bank Modify: Health Bank (Survey for Household bank)	Citizen
Living environment	Household Bank	Original: Household bank Modify: Health Bank (Survey for Household bank)	Citizen
Family Number	Health Bank	Original: Household bank Modify: Health Bank (Survey for Household bank)	Citizen
Family Number	Household Bank	Household Bank (Population & Housing Survey, NSB)	Citizen
Distance to medical facilities	Household Bank	Household Bank (Living Standard Survey)	Citizen
Household income and expenditures	Household Bank	Original: Household bank Modify: Health Bank (Survey for Household bank)	Citizen
Stress level	Health Bank	Health Bank (from push notice QA of Digital Health App)	Citizen

※Health Bank means = Bhutan Healthcare Mobile Application.

In other words, must data be Patient information, Sleep count, Physical activities data, blood pressure data.

4.7 Integration of the App with DHP
The below AWS patterns represent how the App will be integrated with the DHP using API Guidelines provided by NGN Technology vendor in Bhutan.

DHP is developed by AWS, thus, it is preferred that APP is also developed in AWS but not limited to.

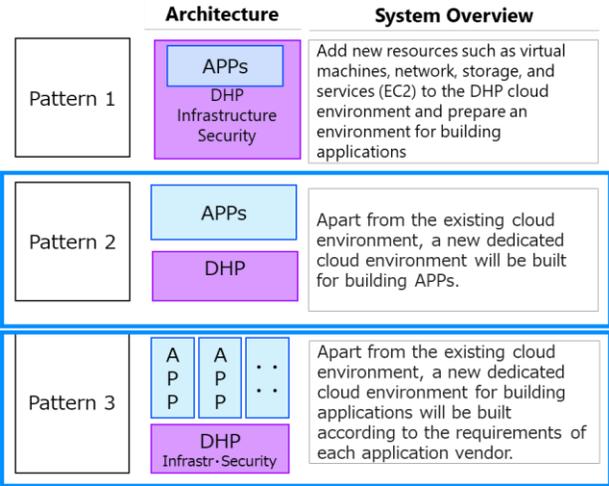Within the following slide of choice, Patterns 2 or 3 are preferable, however, vendors must share their integration plan and possibility. Thus, please make sure APP secure AWS for its own data.

Figure 29: AWS patterns with APP