1. Assignment Background

Nations across Southeast Asia are facing unprecedented challenges to ensure the health, safety and security of their citizens post COVID-19 crisis. The Governments of these nations have realized the importance of digital transformation for smooth and effective delivery of public services. The Lao PDR has embarked on a strategy to accelerate digital transformation focusing on key priorities, such as infrastructure readiness, the development of supporting technology, nurturing digital talent and literacy, and improving regulations on digital ecosystem. In addition to the above, cabinet members of Lao PDR recently approved the five-year digital economic development plan (2021-2025), which will involve using digital technology to drive economic growth, enhance the effectiveness and efficiency of state administration, and strengthen the management of private enterprises.

UNDP and The Ministry of Technology and Communications (MTC) of Lao PDR have entered into a partnership to strengthen and support Lao PDR’s digital transformation acceleration agenda. Under this partnership, Digital Maturity Assessment was conducted to assess the current stage of digital readiness of the Government of Lao PDR, identify key gaps in the digital ecosystem across the country, and potential pilot projects. The next phase of the agenda includes the development of a five-year roadmap for implementation of digital government transformation strategy.
Presently Lao PDR’s government institutional structure, administrative values, government resource operation, and public e-service provision are fragmented in nature. Major factors such as lack of proper communication and co-ordination among ministries/provinces, limited awareness regarding the availability of e-services among the public, absence of a centralized platform for delivery of public e-services and shortage of digital skilled workforce has hindered the planning and implementation of digital Government.

The Lao PDR Government has taken some initiatives to achieve the digital transformation agenda that includes establishment of 49 one-door services centres (ODSCs), ODSC app, and LaoKYC app. The LaoKYC App presently allows Lao residents to submit personal details, such as name, address and location, register phone number, upload green vaccine cards, scan QR code for contact tracing, follow news, and obtain information on Covid-19. The ODSC mobile app pilot was launched in Xaysetha District which can only perform document tracking. The realization of one stop shop app for public e-services is at an infant stage across the country. MTC, with support from UNDP, intends to leverage the existing LaoKYC app and develop a Gov Super App that is expected to provide significant benefits to citizens, businesses and public authorities.

Objective/purpose of the assignment

The Gov Super App will be a one stop shop app for some e-services and information offered by different public authorities which will be the prototype that can be upscaled later to include more e-services. The Super App will help to reduce the time and effort of citizens by minimizing the number of physical visitations to different public agencies for accessing a particular public service. The app will offer information and public services in a well-structured and in a user-focused manner to address the requirements of the citizens and businesses considering gender dimensions. UNDP and MTC are looking to recruit a service provider for leveraging the existing LaoKYC app and developing a Gov Super App.

- Integration of 2 to 3 public e-services offered by public authorities to Gov Super App to drive productivity and efficiency and enable digital transformation at scale across Lao PDR
- Provide enhanced quality of public e-services to citizens and businesses through the app and ensure accessible, convenient, transparent, timely, and inclusive and gender responsive delivery of services
- Minimize the number of visits required by the citizens to physical ODSCs and other public agencies
- Interlinking public authorities with the Super App for better collaboration, information flow, and transparency
- Integrating functionality, data and resources that are used by distinct public authorities to deliver public services
- Integrating the Super App with the Laos National portal

2. Scope of work
UNDP and MTC seek an experienced and qualified service provider to complete the following tasks:

- Conduct a feasibility study on the following:
  - Existing 4 to 5 public e-services offered through mobile apps by distinct public and private agencies. Gain detailed understanding of the available process standards, workflow of the public e-services, service fees, forms, usage of public services, and other related performance indicators. Shortlist 2 to 3 e-services that can be easily integrated in the Super app in consultation with the MTC and UNDP pilot team.
  - Review the app design and structure (technology stack, app architecture, app designing standards, others), app security, scalability, app performance (usage, cost) of the LaoKYC app.

- Collect baseline data on current usage of the shortlisted public e-services, time for delivering these services, and user engagement.

- Redesign and re-engineer (including frontend and backend development) the 2 to 3 public e-services selected for easy integration with the Super app based on the feasibility study analysis.

- Based on the feasibility study analysis of the LaoKYC app, update/upgrade the app structure.

- Review the tech stack used for the LaoKYC app and choose an appropriate Tech Stack which will be able to support multiple functionalities within a single application. The Technology suite can comprise Flutter, Android SDK, Bootstrap, Fabric, Google (Cloud Messaging, Maps, Compute Engine), and others.

- Develop customized design guidelines based on material design guidelines defined by Google for Android apps and Apple’s HIG guidelines for iOS apps for the App UI/UX.

- Re-architect by leveraging the LaoKYC app architecture to ensure that the app will be able to support multiple e-services without any deterioration of performance parameters and security risks. Ensure easy integration of the Super app with the Laos National portal.

- Review the wireframe created for LaoKYC app and re-create a wireframe (involving pop-ups, buttons, text fields, and others) that will provide a visual layout of the Super App defining the initial stage of the user journey.

- Post creation and approval of the wireframes from UNDP and MTC start with backend coding and frontend development.

- Develop and configure an Alpha version of the app focusing on key features (defined during project ideation).

- Review and approval of the Alpha App design and functionalities by UNDP and MTC App Task team.

- Quality, security and performance testing and fix errors and bugs.

- Full implementation and delivery of the features and design of the app (Beta version)

- Finalization, including final quality testing and approval
Roll out for user acceptance testing (UAT) among selected government departments/agencies and sample group of citizens and businesses (representing different age groups, urban and rural areas, MVGs\(^1\) and varied socio-economic classes). 40% participants in the UAT will be female. Collect user feedback on the app based on pre-defined parameters (overall user experience, user interface, content, navigation)

Address the user feedback to improve the overall quality and performance of the app

Launch the pilot App across 2 to 3 provinces (selected in consultation with UNDP and MTC App task team)

Develop an online and offline Training Manual / Module in English and Lao language and conduct training for Administrators (at least 30% female officers) and concerned MTC Personnel on how to use the mobile application as well as simple troubleshooting in case of error in application.

Collect data post launch of the pilot app to measuring efficiency and engagement of citizens based on table below:

<table>
<thead>
<tr>
<th>Expected Outputs</th>
<th>Output indicators</th>
<th>Baseline</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery of 2-3 public e-services</td>
<td>No. of services delivered through the Super app</td>
<td>0</td>
<td>2-3</td>
</tr>
<tr>
<td></td>
<td>% Improvement in Time for delivery of the shortlisted public e-services post development of the Super App</td>
<td>Baseline value (data collected in the initial phase)</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td>% Improvement in User registrations</td>
<td>Baseline value (data collected in the initial phase)</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>% Improvement in User engagement (session length, session frequency)</td>
<td>Baseline value (data collected in the initial phase)</td>
<td>50%</td>
</tr>
</tbody>
</table>

Application Platforms

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\(^1\) Marginalized and Vulnerable Groups
The mobile app will be developed on the following platforms for mobiles only.

- **iOS (Apple)** - Minimum supported iOS version
  - Display orientation Portrait or landscape both
  - Display Support iPhone (480 x 320), iPhone Retina (960 x 640), iPhone 5(1136 x 640), iPad (1024 x 768), iPad Retina ((2048 x 1536)

- **Android (Google)** – Minimum supported Android version
  - Display orientation Portrait or landscape both
  - Small (426dp x 320dp), Normal (470dp x 320dp), Large (640dp x 480dp), XLarge (960dp x 720dp)

- The Super App must be in the latest design technologies (coding language) like HTML, CSS, JAVA, Angular etc. or higher with acceptability on all current user technology platforms, browsers and operating systems.

**Technical Specification for the Gov Super App:**
The Super App must be compatible with and accessible on Mobile platforms (iOS & Android) and devices.

- Design the User Interface and User Experience to ensure that the service is user-friendly.
- Structure overall content to make it screen reader friendly.
- Super App should be scalable. Design of consistent visual elements and Mobile Apps architecture that is scalable and expandable.
- Resolution independent Mobile Apps that will automatically expand/compress itself as per the screen resolution.
- The Super App should consider the performance measures in terms of memory, CPU consumption.
- The app structure (native apps, cross-platform (hybrid) apps, or web apps, microservices) should be based on the user (citizens and businesses) requirements such that the app can be further improved using the platform-specific development tools and technologies defined by Google, Apple and Microsoft respectively.
- Follow platform specific and latest best practices for security and performance to ensure a smooth, convenient, and hassle-free user experience.
- The Super App should provide an update feature in case of newly published version.

**API (Application Programming Interface) Development & Integration:**
The Super app should be developed using open API and open standards that will enable easy integration of additional public e-services while upscaling the app.

**Design Principles**

Key design considerations for Gov Super App are summarised below:

- **Citizen Centric**: The content needs to be structured in such a way that the citizens able to access the desired information with minimum effort. The app should provide citizens and businesses 24-hour access to public services. Ensure inclusivity of Marginalized and Vulnerable Groups.

- **Sim card Registrations Integrations**: This feature should enable users who already registered their sim card to be able to log in to the app using their profile and OTP service provided by LANIC.

- **Social media integration (Optional)**: This feature should enable users to log in to the app using their social media accounts that will streamline the signup and login process for citizens.

- **Interoperable**: The app should be able to integrate and inter operate with different technologies used across various public agencies.

- **Pluggable and Loosely coupled Components**: The app design should support plugging in new technologies/components in a seamless manner, and easy removal of any obsolete technology/component without affecting other components of the system. The components should be loosely coupled to allow changes in applications that are integrated with it without affecting other parts. It should work in a heterogeneous technical environment.

- **Security and privacy**: The app need to have capability to manage security and privacy at multiple levels. Non-functional requirements such as data security, user authorization and access control need to be taken into account while designing the components of the app.

- **Multi-language support**: The Super app should be multilingual (Lao, English).

- **Easy integration with external interfaces**: The Super App needs to have technical capabilities to integrate with external interfaces such as payment gateways, identity providers, and location services.

- **Analytics**: The Super App should be able to generate insights for analytics such as on-demand reports, which can be configured, filtered and customized by various public agencies. FAQ section: A detailed list of answers to common questions can be very useful to the app users linked to the homepage.

- **User feedback section and discussion forums**: These should be included in the app layout to obtain the opinions and viewpoints of the citizens on issues. Citizens can start discussions, post feature requests, ask
questions, provide answers, and report problems with respect to the services offered on the Super App.

- **Chatrooms and chatbot (optional):** The Super App should include an AI-based chatbot (to address common issues faced by citizens while using the app) and a real-time chat option where citizens can directly chat with the staff (for additional assistance on the e-services).

### 3. Deliverables and timelines

<table>
<thead>
<tr>
<th>Deliverables/ Outputs</th>
<th>Review and Approvals Required</th>
<th>Planned Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submission and approval of Inception Report along with detailed pilot project plan (including work schedule)</td>
<td>UNDP and MTC pilot team</td>
<td>End of September</td>
</tr>
<tr>
<td>Submission and approval of Feasibility Study Report including initial Application Development plan</td>
<td>UNDP and MTC pilot team</td>
<td>First week of October</td>
</tr>
<tr>
<td>Super App design and development (wireframe, app structure, app information architecture, tech stack, etc)</td>
<td>UNDP and MTC pilot team</td>
<td>October</td>
</tr>
<tr>
<td>Review and approval of the Alpha App design and functionalities.</td>
<td>UNDP and MTC pilot team</td>
<td>October</td>
</tr>
<tr>
<td>Submission and approval of the Beta version (Ver 1.0) of the Super app (Android and iOS) for UAT and issuance of comments /recommendations from the concerned authorities.</td>
<td>UNDP and MTC pilot team</td>
<td>November</td>
</tr>
<tr>
<td>Pilot launch of the improved mobile application will all bug resolution and appropriate security and performance optimization. Incorporating the comments / recommendations from the concerned authorities</td>
<td>UNDP and MTC pilot team</td>
<td>November</td>
</tr>
<tr>
<td>Conduct training for Administrators and concerned MTC personnel.</td>
<td>UNDP and MTC pilot team</td>
<td>December</td>
</tr>
<tr>
<td>Monitoring and evaluation of success of the pilot by measuring efficiency and engagement of citizens</td>
<td>UNDP and MTC pilot team</td>
<td>October-December</td>
</tr>
</tbody>
</table>
4. Institutional Arrangement

Service provider will work under the supervision of the UNDP and MTC pilot team. Advice and support may also be provided by MOHA\(^2\) and UNDP Governance Unit.

5. Contract Duration

The Service Provider shall be engaged for a period of 3.5 months reckoned from the issuance of the Notice to Proceed (NTP) or commencement of the undertaking according to the date indicated in the NTP.

6. Duty station and expected places of travel

Based in Vientiane Capital, Lao PDR. Some field visits outside Vientiane are envisaged under the contract. The contractor is at all times required to observe UNDP security rules and regulations.

7. Minimum qualifications of the Service Provider

UNDP wishes to contract service providers who can bring in their expertise and knowledge for the development of the Gov Super App. The service provider may be an international firm or a local firm (registered business entity in Lao PDR).

- Minimum of three years of substantive professional experience in the field of design and development of mobile IT applications, preferably related to public services delivery.
- Experience with mobile application serving over one million users or minimum 200 thousand MAU (monthly active users)
- At least 1-2 team members should be proficient in Laotian (Lao language).
- Service provider must have experience integrating with identity servers, payment gateway, telecom services through API.
- Service provider should have a proven record of developing applications in both Android and Apple iOS, with a proof of developing applications in the past.
- Demonstrate the ability to create innovative and visually appealing designs.
- Ability to understand users’ needs and to customize services and products accordingly, in order to provide user friendly solutions that meet user requirements.
- Strong track record of working in partnership with government agencies and innovative leadership in managing evaluations, and proven ability to produce demonstrable results.

Team structure and team members

Service provider must assess the above-mentioned scope and propose appropriate team with adequate seniority and dedicated time for advising and contributing to the deliverables as per the requirement of UNDP and MTC, Lao PDR. However, the minimum requirements for the members of the team would be as follows:

\(^2\) Ministry of Home Affairs
1. **Team Leader**

**Duties and responsibilities:** The Team Leader shall be responsible for planning and managing the entire app development process. He/She shall be the main representative of the service provider firm that will coordinate and communicate with MTC and UNDP pilot team.

**Education:** A Master’s degree in IT / Computer Science/ Engineering/Digital Service/Public Policy/Management/Public Sector Innovation or other relevant fields.

**Work Experience:** At least 7 years of relevant Public Sector Innovation/ Digital Service/Technology/similar advisory services which may include app development, local governance, public sector reform, and local service delivery reform. Experience of working with Governments/UN agencies or international development organizations is desirable. Experience of working in developing countries will be an added advantage.

**Language:** Proficient in English while working knowledge of Laotian will be an added advantage.

2. **Information and Communication Technology (ICT) Expert**

**Duties and responsibilities:** The ICT Expert shall be responsible for conducting feasibility study and preparing the application development plan. He/She shall provide guidance in the app development process and co-ordinate with the MTC and UNDP pilot team periodically.

**Education:** A Master's degree in Computer Science, Information Technology, e-governance, or related field.

**Work Experience:** At least 5 years of relevant Public Sector Innovation/ Digital Service/Technology/similar advisory services which may include app development, e-governance, public sector reform, and local service delivery reform. Experience of working with Governments/UN agencies or international development organizations is desirable. Experience of working in developing countries will be an added advantage.

**Language:** Proficient in English while working knowledge of Laotian will be an added advantage.

3. **Mobile App Developer**

**Duties and responsibilities:** The Mobile App Developer shall be responsible for the development and management of the mobile application and its database management.

**Education:** A Bachelor’s degree in IT / Computer Science/ Engineering.

**Work Experience:** At least 5 years of experience in mobile app development (wireframing, app structure, architecture, and app design). Proven track record of
available and internationally recognized applications. Experience of working in developing countries will be an added advantage.

**Language:** Proficient in English while working knowledge of Laotian will be an added advantage.

4. **Backend Developer**

**Duties and responsibilities:** The Backend Developer shall be responsible for storing and securing data, building frameworks and app architecture, building the operating logic across devices, working with databases and collaboration services.

**Education:** A Bachelor’s degree in IT / Computer Science/ Engineering.

**Work Experience:** At least 3 years of experience in backend development. Experience of working in developing countries will be an added advantage.

**Language:** Proficient in English while working knowledge of Laotian will be an added advantage.

5. **User Interface Developer**

**Duties and responsibilities:** The User Interface Developer shall render the graphics design and user-friendly interface and dashboard of the mobile application in accordance with the preferred design and functionality.

**Education:** A Bachelor’s degree in IT / Computer Science/ Engineering.

**Work Experience:** At least 3 years of experience render the graphics design and user-friendly interface and dashboard of the mobile application in accordance with the preferred design and functionality.

**Language:** Proficient in English while working knowledge of Laotian will be an added advantage.

6. **Database Developer**

**Duties and responsibilities:** The Database Developer shall create the necessary database for the Project and should enable and ensure the seamless integration and operation of the mobile application with its contents / documents and with the user interface for a functioning mobile app.

**Education:** A Bachelor’s degree in IT / Computer Science/ Engineering.

**Work Experience:** At least 3 years of experience in the ICT field especially in Database (Oracle, My Sql, Sql Server) with Government & Leading Private Companies.

**Language:** Proficient in English while working knowledge of Laotian will be an added advantage.
7. QA Engineer

**Duties and responsibilities:** The QA Engineer shall be responsible for monitoring every stage of Super App development and ensure that the design and mobile software adhere to all requirements.

**Education:** A Bachelor’s degree in IT / Computer Science/ Engineering.

**Work Experience:** At least 3 years of experience in developing and maintaining test automation for mobile apps with Government & Leading Private Companies.

**Language:** Proficient in English while working knowledge of Lao will be an added advantage.

8. **Scope of proposal price and Schedule of Payments**

The total amount quoted shall be all-inclusive and include all costs components required to work in Vientiane MTC office, living allowances, communications, consumables, and any other applicable cost that may be possibly incurred by the service provider in completing the assignment.

The contract price will be fixed output-based price regardless of changes in the cost components. Payments will be done upon completion of the deliverables/outputs in above table.

<table>
<thead>
<tr>
<th>Deliverables/Outputs</th>
<th>Payment (% of Contract Cost)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Output 1</strong> – Submission and approval of Inception Report along with detailed pilot project plan (including work schedule)</td>
<td>35%</td>
</tr>
<tr>
<td><strong>Output 2</strong> - Submission and approval of Feasibility Study Report including initial Application Development plan</td>
<td></td>
</tr>
<tr>
<td><strong>Output 3</strong> - Submission and approval of the wireframe, app structure, app information architecture, tech stack, and app design.</td>
<td></td>
</tr>
<tr>
<td><strong>Output 4</strong> - Review and approval of the Alpha App design and functionalities.</td>
<td></td>
</tr>
<tr>
<td><strong>Output 5</strong> - Submission and approval of the Beta version (Ver 1.0) of the Super app (Android and iOS) for UAT and issuance of comments /recommendations from the concerned authorities.</td>
<td>35%</td>
</tr>
<tr>
<td><strong>Output 6</strong> - Pilot launch of the improved mobile application will all bug resolution and appropriate security and performance optimization. Incorporating the comments / recommendations from the concerned authorities.</td>
<td>30%</td>
</tr>
<tr>
<td><strong>Output 7</strong> - Conduct training for Administrators and concerned MTC personnel.</td>
<td></td>
</tr>
<tr>
<td><strong>Output 8</strong> - Monitoring and evaluation of success of the pilot by measuring efficiency and engagement of citizens.</td>
<td></td>
</tr>
</tbody>
</table>
9. **Recommended Presentation of Offer**

Interested bidders/firms are required to submit the following documents as part of their bidding proposal:

1. Form A: Technical Proposal Submission Form
2. Form B: Bidder Information Form
3. Form E: Technical Proposal Format (with CVs of Key Personnel)
4. Form G: Financial Proposal (with protected password)

The password for opening the Financial Proposal should be provided only upon request of UNDP. UNDP will request password only from bidders whose Technical Proposal has been found to be technically responsive. Failure to provide correct password may result in the proposal being rejected.

10. **Criteria for Selection of the Best Offer**

The following criteria shall serve as basis for evaluating offers:

<table>
<thead>
<tr>
<th>Summary of Technical Proposal Evaluation Forms</th>
<th>Points Obtainable</th>
<th>Points Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Bidder’s qualification, capacity and experience</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>2. Proposed Methodology, Approach and Implementation Plan</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>3. Management Structure and Key Personnel</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>70</td>
<td></td>
</tr>
</tbody>
</table>

**Section 1. Bidder’s qualification, capacity and experience**

<table>
<thead>
<tr>
<th>Points obtainable</th>
<th>Points Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Reputation of the Service Provider</td>
<td>8</td>
</tr>
<tr>
<td>1.2 Relevance of specialized knowledge and experience on similar engagements done in the region/country</td>
<td>8</td>
</tr>
<tr>
<td>1.3 Experience working with the Government of Lao PDR or Development partners</td>
<td>7</td>
</tr>
<tr>
<td>1.4 Ability to collaborate with other team members and a broad range of stakeholders.</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total Section 1</strong></td>
<td><strong>30</strong></td>
</tr>
</tbody>
</table>
Section 2. Proposed Methodology, Approach and Implementation Plan

<table>
<thead>
<tr>
<th>Points obtainable</th>
<th>Points Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Understanding of the requirement: Have the important aspects of the task been addressed in sufficient detail? Are the different components of the project adequately weighted relative to one another?</td>
<td>5</td>
</tr>
<tr>
<td>2.2 Description of the Offeror’s approach and methodology for meeting or exceeding the requirements of the Terms of Reference</td>
<td>7</td>
</tr>
<tr>
<td>2.3 Assessment of the implementation plan proposed including whether the activities are properly sequenced and if these are logical and realistic</td>
<td>5</td>
</tr>
<tr>
<td>2.4 Quality assurance procedures and risk mitigation measures</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Section 2</strong></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>

Section 3. Management Structure and Key Personnel

<table>
<thead>
<tr>
<th>Points obtainable</th>
<th>Points Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Composition and structure of the team proposed. Are the proposed roles of the management and the team of key personnel suitable for the provision of the necessary services?</td>
<td>10</td>
</tr>
<tr>
<td>3.2 Qualifications of Team Leader</td>
<td>10</td>
</tr>
<tr>
<td>- General Experience</td>
<td>6</td>
</tr>
<tr>
<td>- Specific Experience relevant to the assignment</td>
<td>3</td>
</tr>
<tr>
<td>- Regional/International experience</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Section 3</strong></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>

**Combined Scoring Method:**

- Where the Technical Proposal will be weighted a maximum of 70% and combined with the price offer which will be weighted a maximum of 30%

**Technical Evaluation of Proposals:**

- All Technical Proposals comprising the information/documentation provided will be evaluated to ascertain the suitability of the bidders/firm to carry out the assignment. The bidders/Firms who obtain a minimum of 49 points of the full mark (70 points) will be considered technically compliant, and the “password” for opening their Financial Proposal will be asked. Then, their Financial Proposals will be evaluated thereafter.
Financial Evaluation of Proposals:

- The Financial Proposals of all bidders/firms who pass the technical evaluation will be scored. The maximum 30 points will be allotted to the lowest financial bid, and all other bids shall receive points in inverse proportion to the lowest fee e.g. \[30 \text{ Points} \times \frac{\text{USD lowest}}{\text{USD other}} = \text{points for other proposer’s fees}\]. The contract shall be awarded to the applicant who receives the highest cumulative score.