TERMS OF REFERENCE (TOR)

Upgrading the Child Labor Management System (CLMS) and the National Hotline System

Project: Against Child Exploitation

Location: Hanoi

Activity code: 01.04.32 - 01.04.05

1. OVERVIEW

World Vision is a Christian relief, development and advocacy humanitarian organization, working to improve the quality of life of people, especially the most vulnerable children.

The Against Child Exploitation (ACE) project, funded by United States Department of Labor, has commenced since 2019 in the Philippines with the view to strengthening the capacity of the Government of Philippines to address the Worst Forms of Child Labor (WFCL) including Online Sexual Exploitation of Children (OSEC), and violations of acceptable conditions of work. Building on fruitful results achieved in the Philippines, the ACE project will be implemented from November 2021 to September 2024 in Vietnam in 06 target districts of 03 target provinces (Điện Biên province, Đà Nẵng city, and Quảng Nam province).

ACE project is looking for contractors with experience in the field of software programming and system integration to implement 03 (three) packages as follows:

- Package 1: Upgrade Child Labor Monitoring System (CLMS); Install the CLMS on the servers;

- Package 2: Integrate Child Labor Monitoring System (CLMS) into 111 National Hotline system; Develop and deploy the Child Labor Information page in Tongdai111.vn website

- Package 3: Develop Click-To-Call module, integrate into the 111 Hotline system to improve the efficiency of information delivery

2. OBJECTIVES

- Upgrading the system and adding features to the Child Labor Management System and Child Labor Information Website.

- Build Click-To-Call feature for 111 system.

- Integrate features into the 111 system.

- Deploy new systems and features to existing servers' environment.

3. SCOPE OF WORK

3.1. Package 1: Upgrade Child Labor Monitoring System (CLMS); Install the CLMS on the servers

Edit and upgrade the CLMS system architecture from individual systems for each province to a unified system used for 63 provinces, including:

- Website admin

- Survey online tool

- Mobile app

Integrate CLMS system with 111 System.

Integrate data from individual old CLMS systems into the one new system.

Deploying the new system to the infrastructure of the 111.

Analyze and evaluate the current system:

Interested suppliers please contact the project coordinator to conduct a survey and analysis of the current system.

Details of requirements:

No.	Tasks	Details
I	**Upgrade CLMS System**	
1	Modify architecture and database design	Modify system design to meet the requirements of upgrading to a general-use, convenient and economical system, convenient and economical when applying to 63 provinces.
2	Modify source code of Web admin, Tool survey online, Mobile app	Modify source code to be compatible with new architecture
3	Migrate data from provinces which are deployed CLMS to new database.	Currently each province is using its own database to store data. When the applied the new architecture, data in the provinces will be stored together in a common database.
4	Complete administration and user authorization features	Allows administrators to assign user permission from national level to province, district, ward.
5	Complete current reporting function	Supplementing general reports for the national level (statistics for each province)
6	Develop the end-user report function	Integrates Metabase BI, allowing administrators and managers at all levels

		to build basic reports based on data collected in the database.
7	Test performance and check system configuration after applying new architecture	Ensure the system achieves appropriate performance to meet the needs of use with large traffic volumes
8	Supplement the report of general children's data	Displays the number of children surveyed by each local unit and by each type of criterion
II	**Develop connection solution with 111 system**	
1	Develop token API which be sent from 111 to authenticate users	Allows users 111 system access the CLMS system from the website admin menu. Users do not need to log in again when accessing the CLMS system
2	Set permission for users from 111 system	Determine the permission of users accessing the 111 system to assign corresponding rights when accessing the CLMS system
III	**System Deployment**	
1	Deploy new CLMS to 111 server's environment	
2	Deploy mobile application: App Store ad Google Play Store	

3.2. Package 2: Integrate Child Labor Monitoring System (CLMS) into 111 National Hotline system; Develop and deploy the Child Labor Information page in Tongdai111.vn website

3.2.1. Integrate CLMS into 111 Hotline System

CLMS has developed an API token module which can be sent from other systems to CLMS to authenticate users. This module allows users with accounts in external systems (identified and licensed by CLMS) to access the CLMS system from external system's interface. Users do not need to log in again when accessing the CLMS system.

CLMS has developed a module to set permission for users from external systems. This module includes the permission sets of users who can access from external systems (identified and licensed by CLMS) to assign corresponding permissions when accessing the CLMS system.

Suppliers need to integrate these 02 (two) modules into the 111 Hotline System to ensure uniformity in use and improve the working efficiency of 111 system operators when using the CLMS system.

During the integration process, the supplier performs consulting and proposing if necessary to achieve the goals of this work package.

3.2.2. Develop a Child Labor Information page and deploy into Tongdai111.vn website:

Requirements for User Interface:

- Interface design is professional, beautiful, ensuring aesthetics.

- Content must be consistent in terms of font style and font size to create user friendliness.

- The contractor designs the interface to correlate with the interface of the website tongdai111.vn

Security – Performance Requirements"

- The website is highly safe and secure, always ensuring the website operates stably, without data loss or problems.

- The website is designed to ensure access speed to avoid visitors waiting too long, and at the same time accommodate a large number of visitors at the same time.

Information content requirements – Frequency of data updates

- Multilingual website: Vietnamese and English

- Easily expandable to multiple languages

- Dynamically designed website (with database), easy to manage and update information.

- Easy-to-use content management system allows administrators easily update service and news without the support of professional programmers, helping to save costs while still ensuring the professional of user interface.

3.2.3. Details of requirements:

No.	Tasks
1	**Integrate CLMS into 111 Hotline System**
1.1	Embed CLMS API into the source code of 111 Hotline system
1.2	Configure CLMS display in Menu of 111 Hotline
1.3	Integrate user permission of CLMS into 111 Hotline

2	Develop and Deploy Child Labor Information Pages
2.1	Develop Child Labor Information pages
2.2	Deploy on 111 Hotline server's environment
2.3	Migrate to tongdai111.vn website

3.3.3. Technical requirements

Back-end

No.	Functions	Description
1	General configuration administration	Manage general configuration information of the website, SEO information, social network channels Facebook, Twitter, Google, YouTube, footer information, maps, logos.
2	Slide administration	Manage slide lists: search, add, edit, and delete slides.
3	Menu administration	Mange menu list: search, add, edit, delete menus, support parent menus management
4	Category administration	Managing categories list: search, add, edit, delete news categories, priority marking feature to display home page, parent categories support
5	News administration	Manage news lists: search, add, edit, delete news articles, priority marking feature to display home page.
6	About us page administration	Allow administrator to edit About Us page.
7	Video administration	Mange video list: search, edit, add, delete videos
8	Knowledge page administration	Allows administrators to update knowledge content about child labor, child sexual exploitation in the online environment... Knowledge is expressed in the form of questions, which can be presented in the form of text, images, infographics, etc.

9	Communication materials page administration	Allow admin to upload communication materials. Documents can be in the form of pdf files, videos...
10	Training Documentation page administration	Allow admin to upload training materials. Documents can be in the form of pdf files, videos...
11	Stories page administration	Allows admins to manage stories page content
12	Contact administration	Manage contacts list which are collected from website
13	User administration	Manage users: add, edit, delete user account

Front-end

No.	Functions	Description
1	Homepage	Header: displays the logo, hotline information, fanpage information, and social networks. Menu block: displays menus that are set. Video block: displays a list of video resources. Slide block: displays sliding image. Catalogue block: displays catalog resource list, view or download function. Footer: displays contact information
2	New categories Page	Displays a list of news according to each news category.
3	News detail page	Display article details, news articles in the same category.
4	Knowledge Page	Will be presented in the form of basic knowledge items/questions about child labor, including child sexual exploitation in the online environment.
5	Communication material Page	Under each sub-category there will be corresponding documents. Allows users to download documents
6	Training Material Page	Upload training/communication guidance documents on child labor. Allows users to download documents

7	Stories Page	Post inspirational stories in the prevention and reduction of child labor
8	Training Course	Link to the course section on the e-learning page
9	Contact Page	Information, maps, contact form
10	Bilingual English, Vietnamese	Displayed in 2 languages: English and Vietnamese.
11	Responsive	Displayed on all types of computer screens and mobile devices.
12	SEO	URL rewrite, configure keyword, description, title, background running meta tags. Supports embedding Google analytics, AdSense, site map code

3.3. Package 3: Develop Click-To-Call module, integrate into the 111 Hotline system to improve the efficiency of information delivery.

3.3.1. Context of developing the Click-To-Call module:

The National Hotline (111) can currently receive calls via the telecommunication and Zalo but is not able to receive calls via the website from the 111's official website or related pages and social network.

The function of receiving calls from the website allows the caller to quickly set up a connection to operators by pressing the "Call 111" button (Click-to-Call) without having to dial or use a phone. or any additional software. This function will expand the call receiving ability of the 111 system, especially for emergencies when there is no phone, or phone/zalo calls cannot be made (overseas, without applications or account). The 111 system also does not have to pay fees for calls like via a regular telephone network.

For operators working remotely (external experts or in case there is no operator in the office): calls can currently only be received by mobile phone. and the 111 must pay additional fees for calls forwarded to their mobile phones.

3.3.2. Analyze and design Click-To-Call module:

Click-to-Call can be done with WebRTC (Web Real-Time Communication) technology. WebRTC allows streaming multimedia through a website browser without having to install additional software or plugins. It was developed by Google and other browsers suppliers and has become a widely supported open standard.

Applications that use WebRTC often have advantages such as high security, reduced latency, and deep integration into popular web browsers like Chrome, Firefox, and Opera.
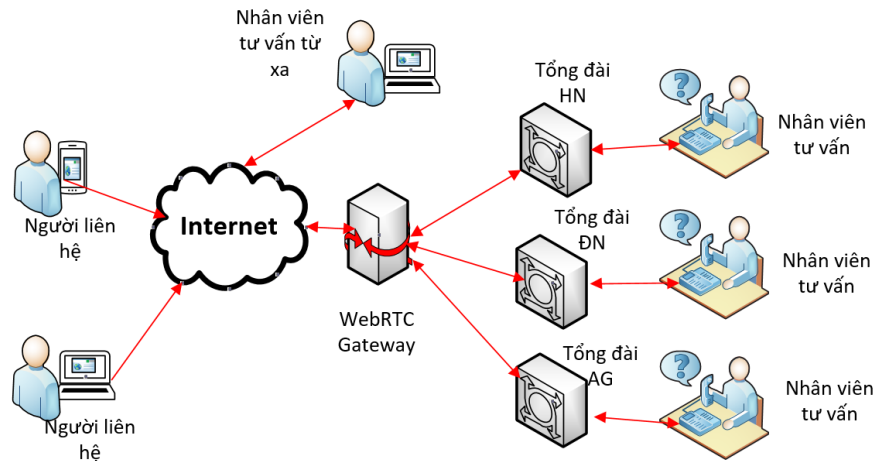
3.3.3. Details of requirements:

No.	Tasks	Details
1	Develop WebRTC gateway software connect with 111 system at Hanoi	Provides a gateway for callers from website contacts and remote operators. WebRTC gateway connects to 111 in Hanoi, Da Nang, An Giang via the internal network using SIP protocol
2	Develop SDK	Includes javascript code files, call icon files, to embed Click-to-Call buttons on websites and other public platforms.
3	Migrate system and update tongdai111.vn website	
4	Upgrade the website of operator	Allow to receive and make call from website
5	Deploy module on 111 server's environment, provide guideline and training to end-user	

3.2.4. Technical Requirements:

No.	Requirements
1	**Receiving capacity**
	Number of maximum concurrent calls: 10
	Number of maximum remote concurrent user:: 5

2	**Calls distribution**
	Calls from the website are directed to ring to the operator who is ready to receive calls and has the longest idle time
	If the operator selected not to answer the call, the call is switched to the next available long-free operator, the first operator is automatically switched to unavailable for website calls
3	**Call Fowarding**
	The operator who is receiving call from the website can transfer this call to other operator in the 111 system or external mobile phone number
4	**Create profile / case**
	Call handlers can record and save caller and case information according to the content of the conversation for easy retrieval
5	**Remote operator**
	Employees working remotely can log in to the case processing website on their personal access device (laptop/smartphone), receiving calls directly on the website without using the 111 system's IP phone
6	**Record**
	Website calls are recorded like regular phone calls

4. TIMELINE

- It is expected that the package will start as soon as the supplier is selected.
- Completion date for each package: 30 working days from the date of signing the contract.

5. REQUIREMENTS FOR EXPERIENCE AND COMPETENCE

5.1. Overall Capacities

- Obtain the legal status and capacity to meet the conditions prescribed by Vietnamese law.
- Have successfully completed at least two projects of relevant nature and scale similar to those specified in the bidding documents.
- Having personnel with high professional and technical qualifications, meeting the requirements to perform the required packages.
- Have the necessary equipment, facilities, and software to carry out the required packages.

- Have appropriate methods for executing the required packages, ensuring progress and quality.

- Commit to warranty and maintenance for the products and services provided.

- Commit and be capable to train end-users.

- Experience in multi-platform system integration is required.

- Preference is given to suppliers who have experience integrating systems with the National Hotline system.

5.2. Experience Requirements for Specific Packages

5.2.1. Package 1: Upgrade Child Labor Monitoring System (CLMS); Install CLMS on the servers

Software Development:

- At least 3 years of experience in web application software development.

- Experience in developing software on Website, Android, and iOS platforms.

- Experience working with databases such as MySQL, MariaDB, Oracle Database, PostgreSQL, etc.

System Integration:

- Experience in integrating web-based software systems, with practical experience on website management platforms like AdminLTE, Magento, Drupal, etc.

Network Management and Information Security:

- Experience in managing LAN and WAN networks.

- Experience in implementing information security solutions, data encryption, access control, user account security, monitoring, tracking, and data backup.

5.2.2. Integrate Child Labor Monitoring System (CLMS) into 111 National Hotline system; Develop and deploy the Child Labor Information page in Tongdai111.vn website

5.2.2.1. Web Design:

Experience:

- At least 3 years of experience in website interface design.

- Experience in designing visually appealing websites that attract users and are aligned with the website's goals and target audience.

- Experience in designing websites that meet user interface (UI) and user experience (UX) standards.

Skills:

- Proficiency with web design tools such as Adobe Photoshop, Sketch, Figma.

- Ability to use tools for creating website mockups and prototypes.

Understanding:

- Understanding of user interface (UI) and user experience (UX) design principles.

- Knowledge of user psychology and website usage behavior.

5.2.2.2. *Software Development:*

Experience:

- At least 3 years of experience in web application software development.

- Experience in developing web applications with user-friendly, easy-to-use interfaces that meet high standards for features and performance.

- Experience in developing web applications with high compatibility with popular web browsers and mobile devices.

- Experience in integrating web-based software systems, with practical experience on website management platforms like AdminLTE, Magento, Drupal, etc.

Skills:

- Proficiency in web programming languages such as JavaScript, HTML, CSS.

- Knowledge of modern web programming frameworks such as React, Angular, Vue.js (preferred).

- Experience using database management systems such as MySQL, PostgreSQL (preferred).

5.2.3. Package 3: Develop Click-To-Call module, integrate into the 111 Hotline system to improve the efficiency of information delivery

5.2.3.1. *Software Development:*

Experience:

- At least 3 years of experience in the Call Center field, developing software applications for Call Centers, especially webRTC applications.

- Experience in developing web applications with user-friendly and easy-to-use interfaces, meeting high standards for features and performance.

- Experience in developing web applications with high compatibility with popular web browsers and mobile devices.

Skills:

- Proficiency in web programming languages such as JavaScript, HTML, CSS.

- Knowledge of modern web programming frameworks such as React, Angular, Vue.js (preferred).

- Experience using popular webRTC libraries such as Janus, Erizo, Pion (preferred).

Understanding:

- Deep understanding of the webRTC protocol and its applications.

- Knowledge of website security standards and security solutions for webRTC applications.

5.2.3.2. API Programming:

Experience:

- Experience in programming RESTful APIs.

- Experience in programming APIs for webRTC applications (preferred).

Skills:

- Proficiency in server-side programming languages such as Java, Python, PHP, Node.js.

- Knowledge of API programming frameworks such as Spring Boot, Flask, Django, Express.js (preferred).

- Ability to design and implement RESTful APIs in compliance with standards and best practices.

6. APPLICATION DOCUMENTS

Applications should be sent to the Procurement Department, email: WVV_SealedBids@wvi.org. before 13:00 on July 16, 2024 (Vietnam time) with email subject: **[Supplier Name] – ACE – System Upgrade.**

The dossier needs to clearly state the experience and capacity of the supplier including detailed price for each item.