



LSCM Project Document -

**Request for Proposal
On
Foundation Components Implementation and
System Cloud Infrastructure Design**

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LSCM Confidential

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1 Introduction

The purpose of this document is to invite Contractors to submit a detailed and fully costed proposal on the foundation components Implementation and system cloud infrastructure design of the Tele-practice Platform System for a Social Service Organization in Hong Kong. This System is a cloud based collaborative platform system for different external partners and Tele-practice solution providers to acquire and deliver their services to the social special need end users in Hong Kong.

This document consists of the following sections:

- a. Introduction
- b. System Functional Requirement Overview
- c. Preliminary Tele-practice Platform System Cloud Architecture Design
- d. System Capacity Requirement
- e. Tasks Summary and Deliverables
- f. Payment Schedule
- g. Preparation of Proposal

The 'Introduction' section helps to explain the project background, the contents and purposes of this document.

The 'System Functional Requirement Overview' section defines the high level overview of the functional requirement of the Tele-practice Platform System.

The 'Preliminary Tele-practice Platform System Cloud Architecture Design' section describes the high level system cloud architecture design and scopes of work in the contract.

The 'System Capacity Requirement' section describes the system user and capacity requirement.

The 'Tasks Summary and Deliverables' section states the tasks and deliverables of the contract.

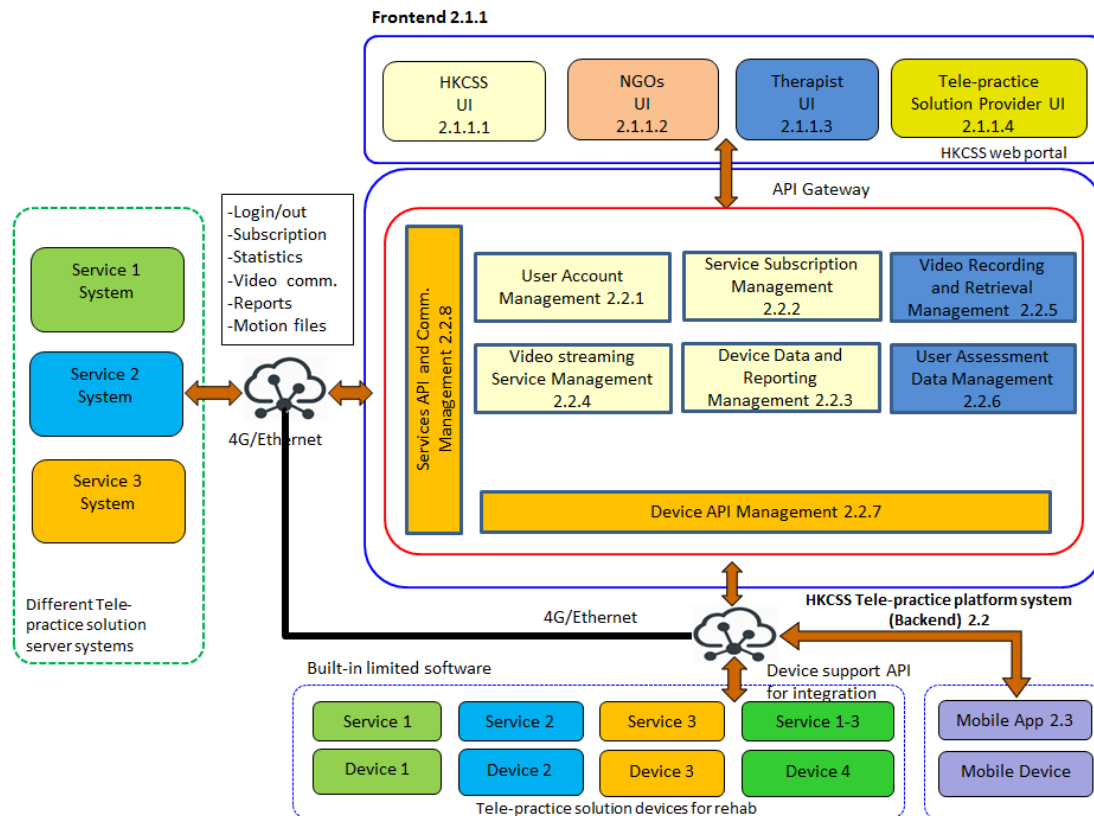
The 'Payment Schedule' section provides the payment schedule for the Contractor to fill in.

The 'Preparation of Proposal' section provides the requirements of proposal submitted by the Contractor.

2 System Functional Requirement Overview

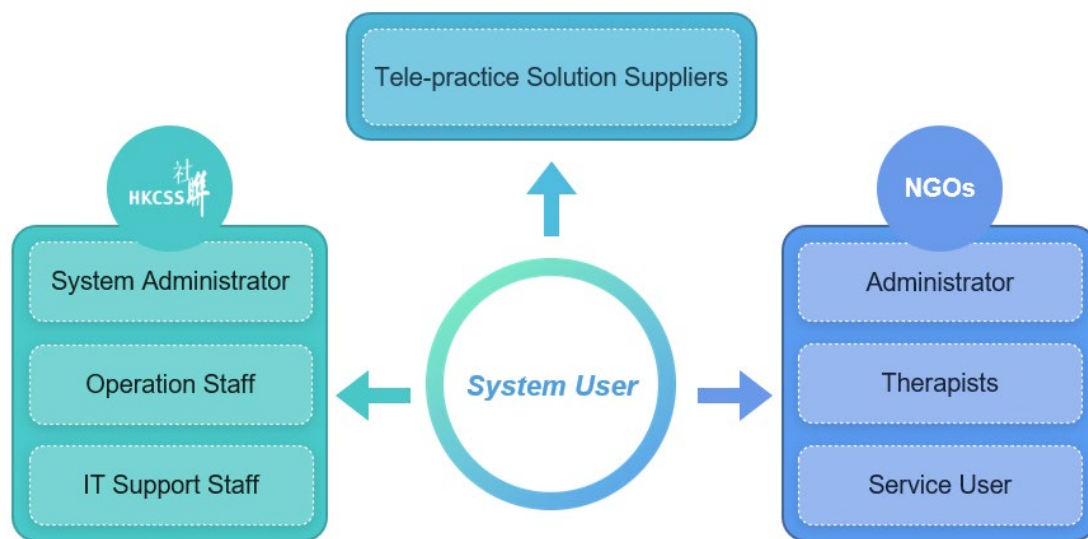
This Tele-practice Platform System is designed to support different kind of Tele-practice devices with services that available in the markets. The overall functional components of the System are composed of four parts:

- a. Backend Component
This is the system main core which provides different kind of services (e.g. User Account Management, Service Subscription Management, Device Data and Reporting Management, Video Streaming Service Management, Video Recording and Retrieval Management, User Assessment Data Management).
- b. Frontend Component
This is the web portals for different system users for system administration and operation purpose.
- c. Mobile App and Device Component
The service users can use the developed mobile app or other Tele-practice device solutions to connect the Tele-practice Platform System for performing tele-practice training and remote assessment with the therapists. Therefore, it includes the interface with different Tele-practice devices (i.e. Device API Management) and the interface with corresponding device service server system (i.e. Services API and Communication Management).



2.1 System User

The IoT Platform Infrastructure for Tele-practice Applications of a Social Service Organization is a collaborative platform and designed for different parties to deliver their different tele-practice services for service users. The system users include the Social Service Organization users (system administrator, operation staff and IT support staff), NGOs (administrator, therapists and service users) and Tele-practice solution Contractor. Therefore, the system will provide different secured web portal for different system users to access for supporting Tele-practice services. Besides, service end users also can access the system to perform Tele-practice services via a developed mobile app.



2.1.1 System User Web Portal

2.1.1.1 Social Service Organization UI

The preliminary functions of Social Service Organization portal for different Social Service Organization users can be shown below.

a. Social Service Organization System Administrator

The Social Service Organization system administrator has the super administrative right in the Social Service Organization portal to:

- Manage different system user role and function access configuration
- Manage different system interface configuration

b. Social Service Organization Operation Staff

The Social Service Organization operation staff can use the Social Service Organization portal to:

- Manage different category user account
- Manage Tele-practice service and subscription process
- Handle user service subscription and manage approval process
- Retrieve the user service reports and statistics

c. Social Service Organization IT Support Staff

The Social Service Organization IT support staff can use the Social Service Organization portal to:

- Monitor the system operation status
- Provide system maintenance supports
- Monitor different Tele-practice solution operation status

2.1.1.2 NGOs UI

This is used for NGOs to manage the service users and their therapists in the IoT Platform Infrastructure for Tele-practice Applications of Social Service Organization. They can help their members to create and manage Tele-practice service subscriptions, refer the service user to therapist for assessment appointment. After the appropriate Tele-practice solution is selected by therapist for service user treatment, NGOs can use the portal to arrange Tele-practice device installation and maintenance order. NGOs are also use the portal to provide first line basic customer services to the users, such as service subscription, service termination and device on-site support issues. Due to personal privacy, NGOs can only view their own service user information or service status.

2.1.1.3 Therapist UI

This is used for therapists to manage their services delivered to service users. The therapists can perform remote one-to-one on-line video assessment, edit service user therapy record and definite the treatment plan for their service users (e.g. define the Tele-practice device training program and assign training video program), retrieve the Tele-practice device data and reports, monitor, and record their own service user assessment information and treatment progress for follow up. Besides, they also import and schedule training video for their service users for treatment. Below is some preliminary proposed UI screen layout for therapist portal. The actual UI requirements will be confirmed during the project implementation stage.

2.1.1.4 Tele-practice Solution Provider Portal

This is used for Tele-practice solution provider to manage and monitor their provided Tele-practice services delivered to service users, such as upload tele-practice report (if need manually) and monitoring the service charge/license usage.

2.2 System Core Services

2.2.1 User Account Management

The IoT Platform Infrastructure for Tele-practice Applications of the Social Service Organization is a collaborative platform and designed for different parties to deliver their different Tele-practice services for Hong Kong service users. Therefore, the platform system should provide a secured centralized user account management service for different category user authentication, resources authorization and data access layer control (e.g. SSO and OAuth). The service user personal data privacy should comply with guidelines issued by PCPD (Office of the Privacy Commissioner for Personal Data). NGO can also create their member user account and provide the following services:

- a. Create user account profile (e.g. name, age, address, medical record, etc.) for new service user
- b. Make appointment for case assessment
- c. Subscribe an appropriate service for a service user with related setup based on assessment recommendation
- d. Record device installation order
- e. Activate or de-activate a service subscription
- f. Terminate a service contract and issue device collection order
- g. Issue device on-site maintenance service order

2.2.2 Service Subscription Management

The service subscription management service will be used to provide the following functions:

- a. Create and define the service provided for service end user to subscribe
- b. Import the service term and conditions, consent information for contract

creation

2.2.3 Device Data and Reporting Management

As different Tel-practice devices have their own type of data and reporting format, the proposed system platform should be designed to cater different of data transfer format, such as csv, pdf or jpeg, system API data, etc. Therefore, the proposed system platform should be designed to manage different of data transfer format, such as csv, pdf or jpeg, system API data for therapists to retrieve for case follow up.

2.2.4 Video Streaming Service Management

The video streaming service management service will be used to provide the following functions:

- a. Provide a real time one-to-one video chatting function between service user and the therapist
- b. Provide and set up a real time one-to-many video training class for the therapist to several service users
- c. The service user video for training can be recorded for therapist to follow up if the service user consent is received.

2.2.5 Video Recording and Retrieval Management

The video recording and retrieval management service will be used to provide the following functions:

- a. The therapists can record the video/capture a photo during one-to-one video chatting/assessment session into the System
- b. The therapists can simply retrieve the video/photo content under the service user profile for treatment and monitoring of progress.

2.2.6 User Assessment Data Management

The user assessment data management service will be used to provide the following functions:

- a. Perform service user assessment and input as form and diagram for problem identification and define the treatment plan
- b. Monitor the Tele-practice reporting data, perform re-assessment and refine the

treatment plan continuously

2.2.7 Device API Management

To support different type of Tele-practice devices without their own backend service system, there should be a device API management layer to manage them. To achieve this, each Tele-practice device should have a unique identifier and data communication between Tele-practice device and the IoT Platform Infrastructure for Tele-practice Applications of the Social Service Organization should be secured via 4G/WiFi or Ethernet network. The Device API Management service will be used to provide the following functions:

- a. Register the Tele-practice devices in the IoT Platform Infrastructure for Tele-practice Applications of the Social Service Organization
- b. Device/service user login authentication and service user resources authorization for usage
- c. Establish a secured data communication channel between the Tele-practice device and the IoT Platform Infrastructure for Tele-practice Applications of the Social Service Organization
- d. Grant or terminate the service subscription to the Tele-practice device
- e. Activate/De-activate the Tele-practice device
- f. Tele-practice device data upload to the IoT Platform Infrastructure for Tele-practice Applications of the Social Service Organization for user practice analytics
- g. Support optional one-to-one and one-to-many video live streaming and communication for video chatting and training exercise session
- h. Download the training or exercise video content and data from the IoT Platform Infrastructure for Tele-practice Applications of the Social Service Organization to the Tele-practice device
- i. Upload the training or exercise data and motion analytic report form the Tele-practice device to the IoT Platform Infrastructure for Tele-practice Applications of the Social Service Organization
- j. Monitoring the operation status of the Tele-practice devices
- k. Provide Tele-practice device statistics and reporting

2.2.8 Services API and Communication Management

To support different type of Tele-practice devices and some of them may have their

own service backend systems, there should a Services API and Communication Management layer acting as a gateway to manage those Tele-practice services on the devices via their own service backend systems. The Services API and Communication Management service will be used to provide the following functions:

- a. Enable the Tele-practice device services
- b. Device/service user login authentication and service user resources authorization for usage
- c. Establish a secured data communication channel between the Tele-practice device service backend system and the IoT Platform Infrastructure for Tele-practice Applications of the Social Service Organization
- d. Grant or terminate the service subscription to the Tele-practice device
- e. Activate/De-activate the Tele-practice device
- f. Data upload to the IoT Platform Infrastructure for Tele-practice Applications of the Social Service Organization for user practice analytics
- g. Enable one-to-one and one-to-many video live streaming and communication for video chatting and training exercise session
- h. Download the training or exercise video content and data from the IoT Platform Infrastructure for Tele-practice Applications of the Social Service Organization to the Tele-practice device
- i. Upload the training or exercise data and motion analytic report form the Tele-practice device to the IoT Platform Infrastructure for Tele-practice Applications of the Social Service Organization
- j. Monitoring the operation status of the Tele-practice devices
- k. Retrieving the Tele-practice device statistics and reporting

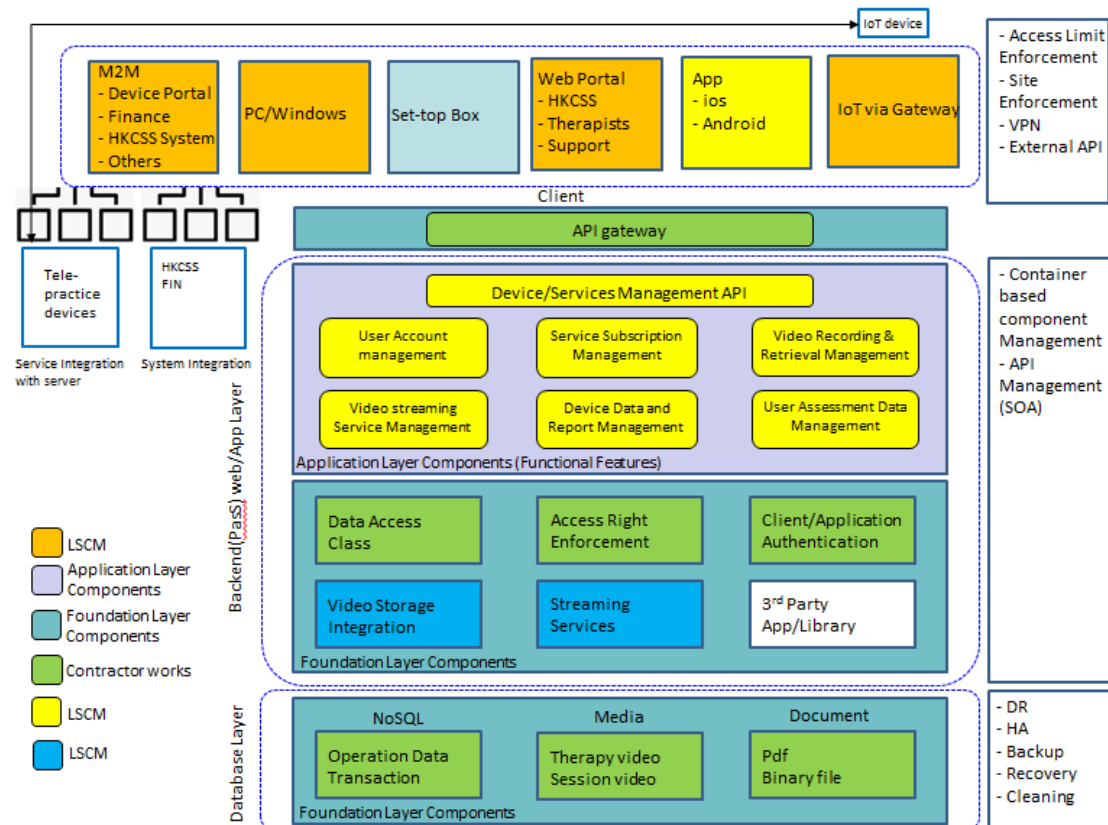
2.3 Mobile App and Tele-practice Device

The service user can use a developed mobile application to connect the Tele-practice platform system to perform video exercise and real time video chatting with the therapist. Besides, the Tele-practice platform system is a collaborative platform that can support different Tele-practice service solution providers to deliver their rehabilitation and physical training services and vital sign monitoring for the service users.

3 Preliminary Tele-practice Platform System Cloud Architecture Design

3.1 Preliminary System Architecture

The preliminary Tele-practice Platform System architecture can be illustrated in the following diagram.



The overall System backend is composed of two layers, web/application layer and database layer.

3.1.1 Web/Application Layer

The web/application layer is composed of two types of components, such as application (related to system functional features) components and system foundation components (related to system core function). Those components are supposed to be implemented in container-based component architecture.

3.1.1.1 Application Components (Scopes out of this contract)

The application components of the System are related to system functional features and contain:

- User Account Management,
- Service Subscription Management,
- Device Data and Reporting Management, including
 - Device API Management - interface with different Tele-practice devices
 - Services API and Communication Management - interface with corresponding device service server system
- Video Streaming Service Management,
- Video Recording and Retrieval Management,
- User Assessment Data Management.

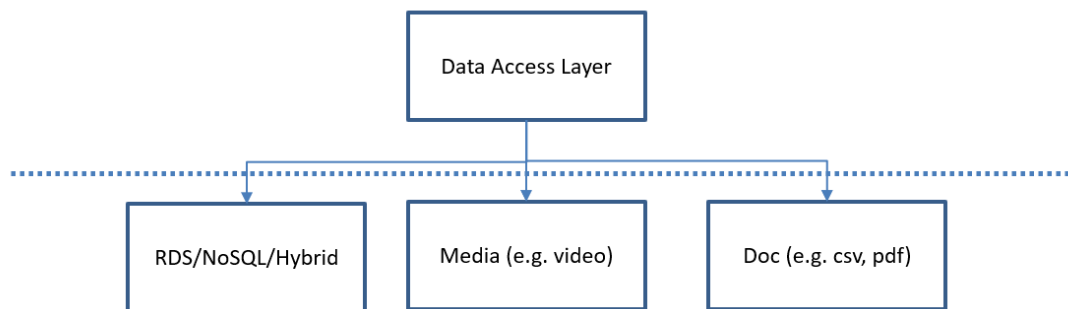
3.1.1.2 Foundation Components

The foundation components are composed of Data Access Class, Access Right Enforcement and Client/Application Authentication which are supposed to be design and implement by the Contractor in this contract, and Video Storage Integration and Streaming Services components will be implemented by LSCM and the Contractor should provide API integration and components deployment services.

3.1.1.2.1 Data Access Class

The Data Access Layer should provide the following function features:

- i. Connect to the different databases and data/file storages
- ii. Open and Close connections
- iii. Support for CRUD operations
- iv. Transaction and roll-back management
- v. Provider independence
- vi. Concurrency management
- vii. Operation and access right delegation audit logging



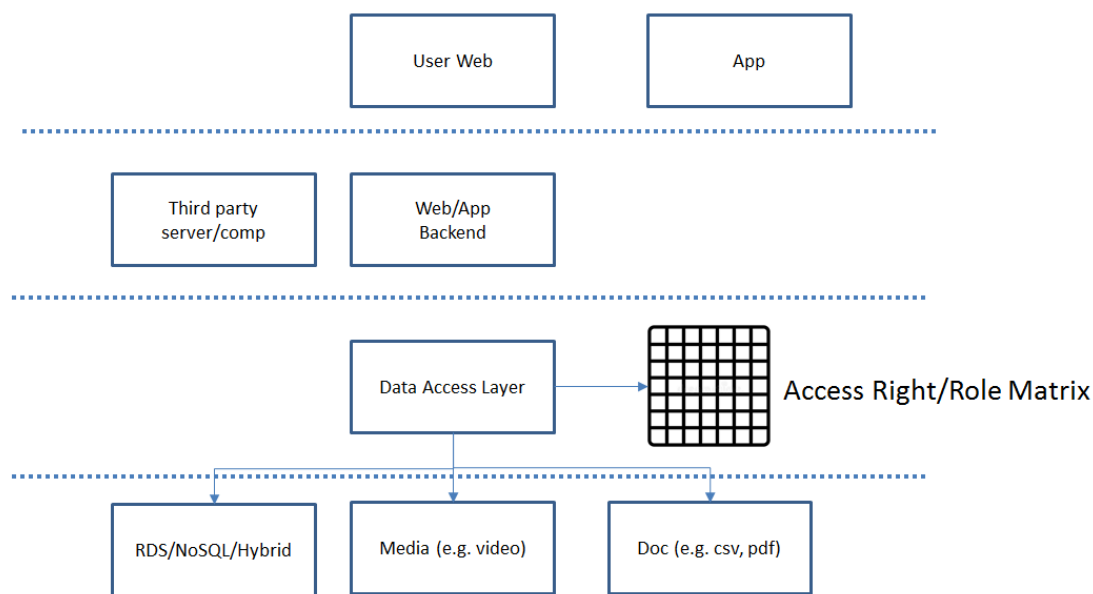
3.1.1.2.2 Access Right Enforcement

The contactor should provide the secured authorization server with the following consideration:

- i. To provide secure way to allow authorized access
Application server helps to control the access of system and functions by user or applications.
- ii. To define the roles for users and applications
Provide interface to define the roles for users and applications to grant access to protected resources.
- iii. Operation and transaction audit logging

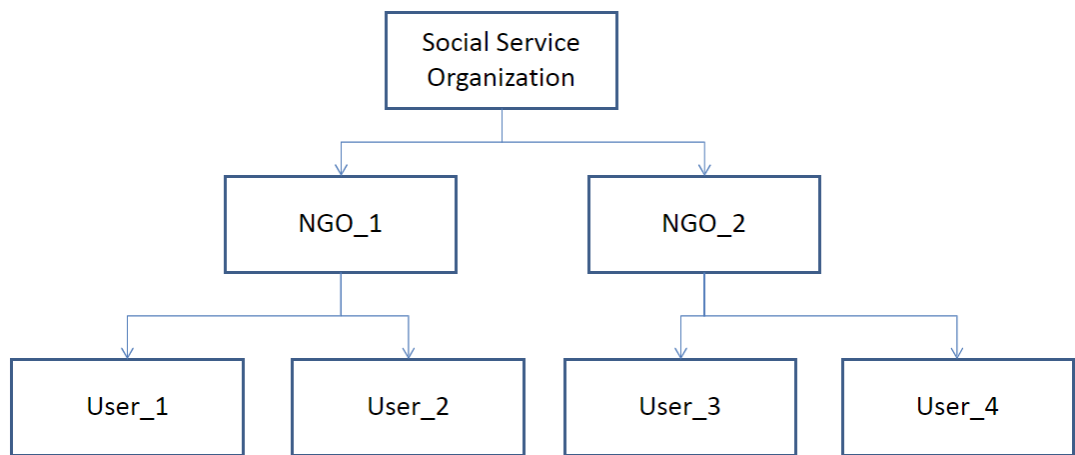
Access control measures regulate who can view or use resources in the System, often relying on authentication or authorization based on log-in credentials. The data access right control design can be referred to

- i. Role-based access control (RBAC) – pre-defined roles and corresponding privileges within the System;
- ii. Attribute-Based Access Control (ABAC) – dynamic define policies (a set of rules) which combine user and data object attributes to perform access action;
- iii. or Hybrid design.

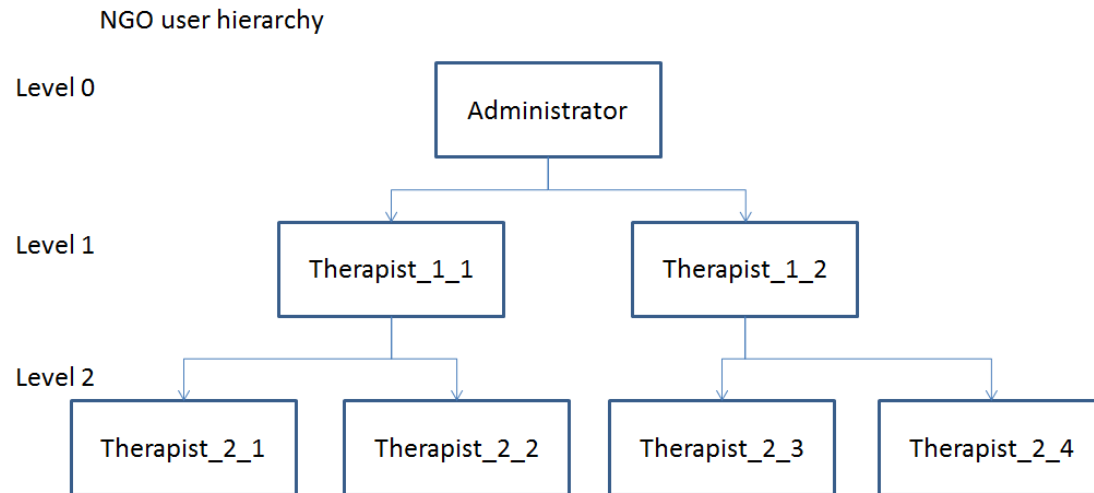


The Social Service Organization, NGO and service user relationship can be illustrated as below diagram. NGOs are members of the Social Service Organization. And each NGO has its own service users as members.

Social Service Organization and NGOs and user relationship



The NGO internal user hierarchy can be illustrated as below diagram.



Level	Role	Description
0	Administrator	<ul style="list-style-type: none"> - Create service user account and registration - Assign the therapist to service user - Make and manage session appointment - Create therapist supervisor (Level 1) and therapist (Level 2), and their association
1	Therapist supervisor	<ul style="list-style-type: none"> - Supervise the team of therapists and manage therapist resource ownership
2	Therapist	<ul style="list-style-type: none"> - Perform remote assessment or consultation session - Create and manipulate therapeutic video files for service user training usage - Make and manage session appointment - Manipulate service user profile with assessment record

Data Access Right Enforcement Use Case Examples

Example 1: Video file

- i. Therapist A creates a training video file and uploads to the System and he is the owner of this video file.
- ii. Therapist A can read, write/update and delete this video file.
- iii. Therapist A can set this video file access attributes (e.g. read only, write,

- delete) with a certain period of time (time limited handover) to other therapists in his/her team.
- iv. Therapist supervisor (team supervisor) has the super permission on create, read, write, delete, ownership transfer on video files that owned by a team therapist.

Example 2: Service user profile and assessment record

- i. Therapist A can create, read and write/update the service user case (including user profile, Tele-practice/vital sign device report or data) with assessment record.
- ii. Therapist A can transfer case ownership with a certain period of time (time limited handover) to other therapists in his/her team.
- iii. Therapist supervisor (team supervisor) has the super permission on create, read, write, ownership transfer (case transfer) on that owned by a team therapist.

3.1.1.2.3 Client/Application Authentication

The client/application authentication component is used to check the identity of the System user (e.g. system portal user, service end user, Tele-practice or vital sign IoT device) to provide access to the system. The contactor should provide the secured authentication process, including system user and role management APIs with the following consideration:

- i. Based on OAuth 2.0 standard(6749) with PKCE(RFC 7636)
The application server should use the OAuth 2.0 authorization framework to enable a third-party application to obtain limited access to an HTTP service, either on behalf of a resource owner by orchestrating an approval interaction between the resource owner and the HTTP service, or by allowing the third-party application to obtain access on its own behalf.
- ii. User-friendliness of bulky System user record maintenance
The system should provide a user-friendly and efficient way to process bulk registration of human users and devices without User Interface.

- iii. Operation and transaction audit logging

3.1.1.2.4 Video Storage Integration

It relates to the training video storage within the System or integration with the third-parties provided video storages.

3.1.1.2.5 Streaming Services

It is used to integrate the cloud managed services on video communications between the service user and therapist.

3.1.2 Database Layer

The type of System data can be summarized as follows:

- i. Service user profile
The service user profile contains the service user general information, such as name, gender, address, phone number and contact person. It is supposed to be created and manipulated by NGO administrator/operator during service user registration.
- ii. Therapy assessment form data
The therapy assessment form is created and updated by the therapist during the assessment process with service user.
- iii. Therapy consultation video capture
During the remote assessment or consultation session between the service user and therapist, the session may be recorded in video files as a part of service user assessment data.
- iv. Training video
The therapist can create training videos and upload to the System as video library for service user daily training usage. The therapist can assign specific video files to service user for training. The assigned video files will be downloaded to the service user set-top box or the developed mobile app.
- v. Service user uploaded video

The service user can follow the training video assigned by the therapist for daily training. The service user can record the practicing video and upload to the System for the therapist reference.

vi. Tele-practice device report

The tele-practice device report means the reports generated by different kind of Tele-practice devices. The report format may be in csv, jpeg, pdf or binary file.

vii. Device data

The connected device data will be uploaded and stored in the System as per service user (e.g. vital sign data)

viii. Operation data logging

It includes the system audit log and other transaction data (e.g. billing data).

The contractor should provide the database layer design and implementation services. The database layer is composed of

a. NoSQL/RDS/Hybrid

- System and service user's profile
- Service user assessment data
- Tele-practice solution device data
- Vital sign monitoring device data

b. Media Storage

- Therapist training or exercise video library
- Service user session recorded video

c. Document

- Photo/drawing scan copy
- pdf or other file formats

3.2 System Cloud Infrastructure Design

3.2.1 Cloud Platform Services

The Tele-practice Platform System should be hosted under public cloud infrastructure platform and operated by the Social Service Organization. Therefore, the Contractor should provide the System cloud platform infrastructure design with setup and configuration both in testing and production environment, and recommend the cloud platform(Elastic Compute Cloud) service provider with the following considerations:

a. Security

To ensure the overall system and data security and based on OGCIO IT security guidelines, IT Security Guidelines[G3] and Baseline IT Security Policy[S17]. Besides, the ability of the System to protect information and systems, as well as establishing controls to detect security events based on industry practices of ISO 27001, ISPC-SM01. The system design should be evaluated and confirmed with external SRA (Security Risk Assessment) auditing service. Before the System rollout, it should be performed SRAA (Security Risk Assessment & Audit) by external auditing services in LSCM cost.

b. Personal Privacy

To ensure the service user data privacy, the System should fulfill the Privacy Impact Assessment (PIA) and Privacy Compliance Audit (PCA) in accordance with the guidelines issued by PCPD (Office of the Privacy Commissioner for Personal Data) which

- i. PIA covers the personal data processing cycle analysis, privacy risks analysis, recommendations in mitigating privacy risks based on Hong Kong Personal Data Privacy Ordinance (PDPO) and guidelines/standards issued by Privacy Commissioner of Hong Kong.
- ii. PCA covers review the platform/application to ensure that all identified privacy risks have been fixed with regards to the recommendations provided in PIA exercise.

c. Reliability and Availability

The ability of the cloud system design is to operate in a manner useful to the consumer despite transient and enduring faults in the application and underlying operating system, network and hardware dependencies. e.g. issues and dynamically acquiring computing resources to meet demand, uptime guarantees and service level agreements. It also considers the design on system and database replication, failover, backup & disaster recovery.

d. Performance Efficiency

The ability of the System to use computing resources efficiently to meet system requirements and to maintain that efficiency as demand changes and technologies evolve. It includes the cloud performance monitoring and testing tools help organizations gain visibility into their cloud environments, using specific metrics and techniques to assess performance. The Contractor should provide various metrics that can assess the performance of the cloud computing resources, including IOPS, filesystem performance, caching and auto-scaling on the provisioning of resources.

e. Scalability

The ability of the System to increase or decrease in performance and cost in response to changes in system loading and processing demands.

f. Managed services capabilities

It covers container orchestration, managed containers, and/or serverless architecture for system foundation and application components easy deployment, management and scale containerized applications.

g. Support

The recommended cloud platform services provider should provide consolidated billing services and managed services support (Monday to Sunday, 00:00 – 24:00), such as

- Support service on server resources utilization and database monitoring
- Performance bottleneck troubleshooting

- Incident and problem management
- Infrastructure and resources management
- Instance backup management
- OS level patching management

h. Costs

The contractor should provide the proposed cloud platform costing and support service charges estimation. The subscription of the cloud platform services is provided by LSCM.

i. Cost Optimization

The proposed cloud platform service provider should avoid or eliminate unneeded cost or suboptimal resources.

j. Interoperability

The selected cloud platform should have interoperability to migrate to another cloud platform with limited/minimal effort in the future.

3.2.2 API Gateway

The contractor should provide the secured API Gateway to serve as a single-entry point for external access (system user or 3rd parties systems and devices) with the following considerations:

a. Authentication

The API Gateway should ensure only authenticated users can access the backend APIs by providing an authentication layer.

b. Authorization

The API Gateway then authorizes “what” the authenticated user has access to after Authentication.

c. Logging

The API Gateway should provide default logging capabilities as it sits between the users and APIs.

d. Monitoring

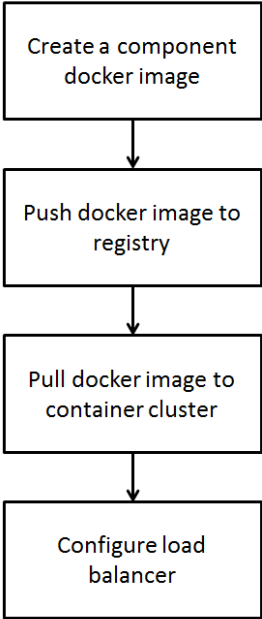
The API Gateway should provide monitoring across all APIs. An API Gateway should be able to track request/response, time is taken, SLA, etc. It should be able to integrate with a full-featured monitoring solution to help track this information.

e. Redundancy

The API Gateway must support scalability and high availability, load balancing, shared state without compromising performance. It should provide linear scalability and fault-tolerance on hardware or cloud infrastructure for mission-critical data. It should also support replicating across multiple data centers and providing lower latency.

3.2.3 Container Based Component Management

The foundation layer and application layer components are designed and implemented in container based. The Contractor should provide any tool/services which is used to manage clusters of containerized components, including container based component creation, deployment management and procedures. The component container deployment workflow can be illustrated as below diagram.



4 System Capacity Requirement

In the pilot stage of the Social Service Organization Tele-practice Platform System, the combination of pilot user & device group is as below:

- i. Number of Service Users: 500 (maximum in pilot stage)
- ii. Number of NGOs: 6 (TBC)
- iii. Number of Therapist: 50 (TBC)
- iv. Number of Devices: 500 (TBC)

After the completion of pilot stage (one year), it is expected that the number of service users will be increased to 5,000 (second year) and 50,000 (third year) respectively. Therefore, the Contractor should take this service user forecast figure in system cloud infrastructure and foundation components design consideration and make sure that the cloud system can be scaled up by increasing cloud capacity and without any changes in infrastructure design and implementation work.

5 Tasks Summary and Deliverables

The project overall design and implementation period is around 12 months and with 2 months system nursing period. The tasks mentioned below are the project deliverables and should be completed by the Contractor within the project timeline below.

Stage	Tasks	Deliverables	Tentative Project Timeline
1	System Analysis and Design and Setup a) Study and analyze the project system, security and user requirements and propose the system network infrastructure with design and configuration on proposed cloud platform service provider. Prepare the overall cloud system infrastructure design, configuration, system, database, file and video storage with high availability, synchronization, backup and recovery with implementation services. b) Setup and configure cloud ready for development testing	a) Design and Set up documents include: i. System infrastructure design specification ii. Network architecture design and technical system option iii. Overall system configuration, installation, and operation manual iv. Database/file storage backup and rollback procedures, database and initial data setup scripts v. Containerized foundation and application components creation and deployment manual b) Cloud system platform setup ready for foundation and application components development testing c) Training session with documentation on system cloud infrastructure design strategy, setup, operation and maintenance procedures, containerized foundation and application components creation and deployment procedures	Jul-Aug 2022
2	System Foundation Components	a) Development documents include:	Aug-Oct 2022

	Development a) Design and implement on system foundation components : <ul style="list-style-type: none"> - Data Access Class - Access Right Enforcement - Client/Application Authentication b) Perform and support system integration with application components and user portal	i. System foundation components design and API specification ii. Database/Storage setup scripts and configuration guide iii. Program manual iv. Component deployment manual b) Source code i. System foundation components source code, including executable program with configuration files, development and installation guide ii. Provision of sample codes/templates on data access layer application for accessing different kind of system data (e.g. RDS, NoSQL and media files)	Nov-Dec 2022
3	System Testing a) Conduct System Acceptance Test b) Conduct User Acceptance Test c) Fix and fine tune the System which has incorporated changes recommended by SRAA, PIA and PCA Contractor	a) System Acceptance Test and User Acceptance Test results and reports	Jan-Feb 2023
4	Readiness for production and Training a) Deploy System in production cloud platform b) Conduct System and operation training session	a) Cloud system platform ready for production b) System and operation training session with documentation (including the system foundation component design pattern, setup, operation and maintenance procedures)	Mar-2023
5	Successful Completion of system rollout and nursing period	a) Two months system support maintenance includes system fine	Apr-2023 to May-2023

	a) Provide system nursing services	<p>tuning, bug fixing and update software versions patches. Ensure system reliable and satisfactory to meet operation service level requirements. The Contractor should provide troubleshoot services on any system abnormal observed and should provide advice and assistance to the LSCM as and when required. The Contractor shall monitor the performance of the cloud infrastructure of the System, and identify, analyse and resolve all issues and problems and causes thereof that affect the performance or proper functioning of the System, or its integration or interface or connection with other systems. When necessary, the Contractor shall seek the cooperation and input from the Other Contractors and LSCM. In case any problem or issue is still unresolved following investigation, take appropriate remedial actions to ensure that the issue and problem is resolved within the shortest reasonable time-frame; in the interim, the Contractor shall propose and implement a work-around solution to the LSCM's satisfaction within one (1) working day or such longer period as may be allowed by the LSCM. The "working day" means Monday to Friday, other than a public holiday (as defined in the Interpretation and General Clauses</p>	
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		<p>Ordinance (Chapter 1 of the Laws of Hong Kong) or a day on which Tropical Cyclone Warning Signal No. 8 or above is hoisted, or a Black Rainstorm Warning Signal or “extreme conditions after super typhoon” announced by the Government is/are in force, for any time during 0900 to 1745 hours. The expression “normal working hours” shall mean 0900 to 1800 hours.</p>	
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6 Payment Schedule

The Contractor should propose the project payment schedule with stage completion with deliverables acceptance will be shown as below.

Stage	Payment Proportion when Stage was completed and accepted
1	30% of the payment (System Analysis and Design and Setup)
2-3	40% of the payment (System Foundation Components Development and System Testing)
4	20% of the payment (System production rollout)
5	10% of the payment (Nursing period completion)

7 Preparation of Proposal

7.1 Technical design and work plan overview

Contractor must submit the Technical design, sufficiently detailed Work Plan, Timeline that accurately assesses and shows an understanding of the project objectives and demonstrates a sound approach and technical capability to accomplish the deliverables based on the project requirements stated in the RFP.

7.2 Project team expertise and structure

Contractor must submit the resumes of their major project team members for reference. Contractor is to propose their project team structure, with an estimate of how much resources, of various seniority and position, would be committed to the Project. Contractor must ensure that it will be a relatively stable structure throughout the project duration. LSCM will not be responsible for any resources required due to staff turnover in the Contractor's project team. LSCM reserves the right to request for changing any member in the Contractor's project team, without the need to give any explicit reason. The resource plan is for reference only. The Contractor would be responsible for monitoring their own resources to deliver all the agreed project deliverables.

7.3 Project Methodology and Monitoring

Contractor must declare the Project Methodologies adopted in the whole project life cycle to ensure the project delivered effectively and efficiently. Contractor also must provide Project Monitoring with documentation (e.g. source code version control, project progress report and meeting minutes, etc.) in all phases and meetings of the project.

7.4 Prior relevant project experience

Contractor must provide prior experience in carrying out the similar in nature and scope of services to the requirements stated in the RFP. References may be contacted.

7.5 Company quality accreditations

Contractor must introduce their background with quality accreditations in IT project development.

7.6 Presentation

Contractor must provide presentation(s) of its Proposal requested by LSCM in the tendering process. Answering questions and clarifications may be required at the expenses of the Contractor. Contractor's presentation will be conducted but the timetable may be revised according to actual needs.

End