

1. PROJECT REQUIREMENTS

1.1 USER REQUIREMENTS

Part 1: Refresh e-Platform (Front-end Portal) Modules for clients

The website shall contain 2 layouts (i.e. adults and youth versions) and all content shall be the same for clients to access.

1.1.1 Main Page

- a. Graphic & Layout Design for Homepage elements/ Modules, including but not limited to:
- b. Homepage elements/ Modules, including but not limited to:
 - Navigation
 - Banners
 - Multiple language selection (Transitional Chinese / English)
 - Font Adjustment
 - BOKSS information (e.g. Contact us / About BOKSS)
 - Latest News
 - Client login
 - Ability to embed plug-in/Module (e.g. social media / Facebook)
 - Chatbot
- c. Responsive Website
 - Allow on-going update and maintenance for the latest browsers and OS.
 - Comply with “無障礙網頁內容指引 2.1 (WCAG 2.1)”
- d. Optional: Web Accessibility design.
- e. User-friendly interface and easy-to-use Modules.

1.1.2 Chatbot section

- The System shall respond to the client’s enquiry with a pre-set question and answer (Q&A) script. If the keyword is not found in the pre-set data, the System shall give the client a hotline number to call.

1.1.3 Client Login and Update Section

- There are 2 types of clients, i.e. Adults and Youth.

- The System shall provide at least 3 fields for clients to login and an authentication method to identify the client's login into the System.
 - ◆ Email address or mobile number.
 - ◆ Password
 - ◆ CAPTCHA
- The System shall generate a temporary password in case of invalid login.
- Each type of login has 4 security levels to access restricted pages and data of the portal and the privilege settings are controlled by the back-end Content Management System (“CMS”).
- 2 types of login Registration:
 - ◆ Limited: when clients enter their mobile / email address and district information (pulldown box selection), the System shall check with the CMS. If the client is an existing client, the System shall prompt a warning message. If the client is new, the System shall create a new login ID automatically and send the password by email or SMS to the client.
 - ◆ Full: Login ID and first-time password shall be generated by authorized users in the CMS for BOKSS’s existing members.
- All login records must be saved in the System for audit purposes or report usage.

Service target	Public	Public	BOKSS’s existing members (type A)	BOKSS’s existing members (type B)
Access Level	0	0,1	0,1,2	0,1,2,3
Login	No	Yes (Very brief registration (name & email))	Yes (Full registration)	Yes (Full registration)
Access Contents	1. News 2. Video 3. Useful information 4. Chatbot 5. Level 0 Self-	1. Level 1 Self-Assessment 2. Level 1 Course 3. One-on-one online chat	1. Level 2 Courses 2. Level 2 guided online group	1. Level 3 Courses 2. Level 3 guided online group

	Assessment 6. BOKSS information	with Worker 4. Live Program		
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1.1.4 Learning Management Section

- Course Management Module
 - ◆ All courses, quizzes and questionnaires shall be saved in the CMS, related course owner shall add, change and remove the course in CMS.
 - ◆ Clients shall be shown the courses available for enrollment according to their level.
 - ◆ The course list available for the client shall be controlled or set up by the CMS.
 - ◆ The Module shall provide a full list of courses for the client to view and make request to join. Once the request is submitted, the Module shall confirm or reject the request automatically based on the selection criteria. Or else the related course owner shall receive an email to approve or reject the request in the CMS and then inform the client of the result by email.

- Learner management Module
 - ◆ All courses shall have a scoring mechanism which is controlled or set up by the CMS.
 - ◆ Courses on level 0 and 1 are open to the public to join.
 - ◆ Login is needed for some courses on level 1 (e.g. online counselling or online group courses).
 - ◆ Courses on level 2 and 3 are only for BOKSS's existing members to join.
 - ◆ In Level 2 and 3, each course shall have a noticeboard for the administrator to share and display selected clients' feedback.
 - ◆ If the client has not yet completed or is often absent from the course, the Module shall provide a reminder or alert message to both the client and the administrator.
 - ◆ If the course is an online individual/group chat or video counseling, the Module shall send a link to the client to join so that the client does not need to trigger the menu manually.
 - ◆ The Module shall send a reminder or alert message to the client before the course starts (e.g. 30 minutes and the

parameter can be changed in the CMS).

- Learner record Module
 - ◆ The Module shall save all course results of the client (e.g. quiz /questionnaires / course start and end time) in the CMS for further analysis (including case recording and management module).

1.1.5 Online Professional Support Section

Login is needed for the following Module functions:

- Online chat and Video counseling Module
 - ◆ The client, staff shall make use of the booking module to make online professional appointment in the System.
 - ◆ The Module shall send a link to the client to join the online support according to the online professional support schedule, so that the client does not need to trigger the function manually.
 - ◆ The Module shall send a reminder or alert email to the client before the online chat starts (e.g. 30 min and the parameter can be changed in the System).
 - ◆ The appointed online support shall be shown in this section for the client to make enquiry.
 - ◆ The Module shall allow staff to access the case recording module in the CMS to review the record saved during the online chat or videoconferencing.
 - ◆ The Module shall save the start and end time for each online interaction.

- Appointment Booking Module
 - ◆ The Module shall show the active course list based on the client level.
 - ◆ The Module shall show the client the course and calendar for enrollment or further amendment.
 - ◆ Each course has a different owner (if any) and the privileges can be set up in the CMS.
 - ◆ The Module shall provide a warning message when the client cannot enroll a course.

- ◆ If the client enrolled the course but not on time and over a few times (parameter setting) to attend the course, the Module shall prompt the warning message to alert the client, system may block your course enrollment on next time.
- ◆ Module payment function shall be ready for future use (eg. Like HKTVMALL payment procedure, the detail will be provided later).

Remark: For the front-end portal workflow logic, please refer to Appendix 1A

Part 2: Refresh e-Platform (Backend - Content Management System)
Administration Modules

1.1.6 The Service Provider shall centralize and migrate all current database (e.g. existing client profile / case library system data) into this Module and enable information synchronization to front-end e-Platform:

1.1.7 Resources management section

- Staff record Module
 - ◆ The Module shall provide Add/Change/Hide (instead of delete) functions for the administrator to input staff information.
 - ◆ The Module shall provide Bulk Creation/Editing for creating or editing staff information by uploading Excel/CSV files.
- Volunteer record Module
 - ◆ The Module shall provide Add/Change/Hide (instead of delete) functions for the administrator to input volunteer information.
 - ◆ The Module shall provide the Bulk Creation/Editing for creating or editing volunteer information by uploading Excel/CSV files.
- Client record Module
 - ◆ The Module shall provide Add/Change/Hide (instead of delete) functions for the administrator to input client (level 2 and 3) information.
 - ◆ The Module shall provide the Bulk Creation/Editing for

creating or editing client information by uploading Excel/CSV files.

- Online Course Duty Record Module
 - ◆ The appointment system shall show the clients the availability of the staff and volunteers according to their duty record made in the CMS.
- Timesheet Module
 - ◆ The staff and volunteer duty record (date and time) shall be kept track of in the System.
- Payment record Module
 - ◆ The Module shall provide a report showing both the staff and volunteer duty record and course log record

1.1.8 User management section

There is 5 user type in the user management section.

User Type	User right
Administrator	Full function access right.
Operator	System admin right (e.g. create client profile, update homepage information and upload video files, etc.)
Professional staff	Online chat / video counseling right, etc.
Client (BOKSS member)	Access 0-3 level front-end e-Platform functions
Client (limited login user)	Access 0-1 level front-end e-Platform functions.

- User Type Access Right Table Setup Module
 - ◆ The Module shall allow users to add, change and delete the right of creating records in the function list table.
- Login User Table Setup Module
 - ◆ The Module shall allow users to create a login table record for all users to login and access the System.
- User-Group Table Setup Module
 - ◆ The Module shall allow users to create a user-group table to categorize the users of the System; and allow to add and delete records in the table.

- User-Group Privilege Table Setup Module
 - ◆ The Module shall allow users to add, change and delete user group code in the table.
 - ◆ The Module shall allow users to assign the privileges in the user group table :
 - by User type
 - by Course groups (if any).

1.1.9 Resources And Reference Materials Section

The system shall provide a standard framework for authorized users to add, change and delete a course.

- Video And Audio Library Module
 - ◆ The Module shall allow uploading and categorizing video and audio files into different folders.
 - ◆ The upload function shall allow versioning control in order to prevent any invalid operation.
 - ◆ To the extent necessary, the Service Provider shall convert any video and audio files (provided by BOKSS) and make them compatible with the System.
- Question and Answer (Q&A) Module
 - ◆ The Module shall allow users to create and save Q&A records in the System.
 - ◆ The Module shall allow users to make Q&A embedded in the course.
- Document Depository Module
 - ◆ The Module shall allow uploading document files to an agreed file folder in the System.
 - ◆ The upload function shall allow versioning control in order to prevent any invalid operation.
 - ◆ To the extent necessary, the Service Provider shall convert any document files (provided by BOKSS) and make them compatible with the System.

1.1.10 Reporting Section

- The Module shall provide various reports, including but not limited to the following:
 - ◆ Standard data report (e.g. User listing / Course listing /

Timesheet / Roster listing)

- ◆ Course analysis report
- ◆ Outstanding report (e.g. incomplete course listing by the client)
- ◆ Client status report made by staff
- ◆ Chatbot data analysis report
- ◆ Payment report
- ◆ Audit trail report
- ◆ Bank of China audit report

1.1.11 System admin section

- The System functions list table module
 - ◆ The Module shall create a system functions list (show all functions on the screen) for the user to select and create level and user access right to the System.
- Level Table Setup Module
 - ◆ The Module shall allow users to set up level (i.e. 0-3) for the client to access the front-end e-platform.
- Course Setup Module
 - ◆ The Module shall allow users to add, change and delete course information (e.g. course code and name, file location path etc.).
 - ◆ The Module shall allow users to set up answer Q&A embedded in the course.
 - ◆ The Service Provider shall set up a scoring mechanism applicable in the course (including quiz and questionnaire).
 - ◆ The Module shall create a group course table for users to categorize course codes which should be editable in the System.
- Release Courses Maintenance to Front-end e-Platform Module
 - ◆ The Module shall provide an established (maker/checker) function to release any course to Front-end e-Platform for enrollment.
- Chatbot Setting Maintenance Module
 - ◆ The Service Provider shall set up a Chatbot mechanism (pre-set Q&A) applicable in the System.
- System Parameter Setting Maintenance Module

- ◆ The Module shall include all system parameters setting (e.g. number of use of the counter in a special course, user password expiry date).
- Online Video Conference Setting Module
 - ◆ The Service Provider shall set up an online video conference mechanism (number of online group participants) applicable in the System.
- Staff/Volunteer Programs Maintenance Module
 - ◆ The module shall allow staff/volunteers to monitor and update the client information and status of course in the System (e.g. course performance, case follow-up, client activities in the System) by period.
 - ◆ The module shall allow staff/volunteers to accept or reject the course, online chat or video counseling requested by the client in the System.
 - ◆ The module shall allow staff/volunteers to invite the client to online video conferences individually or in groups.
- Case Recording And Management Section
 - ◆ For details, please refer to Appendix 1B.

Part 3: Mobile App

1.1.12 The System can run the OS Platform including but not limited to the following:

- Android
- iOS

1.1.13 System Functions

- The mobile apps shall have selected content and functions from the front-end e-Platform.

1.1.14 The Service Provider shall be responsible for the preparation work and implementation work of submitting and launching mobile apps on both Google Play Store (Android) and App Store (iOS).

Part 4: Technical Requirement

1.1.15 Development Requirements

- The System shall be in cloud based environment.

- The System development tools shall be proposed by the Service Provider and listed on the quotation.
- Housekeeping method/procedure shall be provided in the System for the staff to retrieve history data if in need.
 - ◆ Archiving of useless data.
 - ◆ By masking sensitive/personal data instead of deleting it.
- Audit Trail
 - ◆ Log every changes by who, when and what changes have made.
- At the database level, the System shall provide data encryption to protect sensitive data.
- Bulk Creation/Editing
 - ◆ Create or edit user information by uploading excel/CSV files.
- In online professional support Module, the Service Provider shall provide embedded AI tools (voice to text) to record conversation (between staff and client) into editable text.
- The Website shall support the browser versions including but not limited to: IE 10 or above, Firefox, Chrome, Microsoft Edge and Apple Safari.
- The Mobile Apps shall support iOS version 11 or above and Android version 7 or above.
- The Website and Mobile Apps shall restrict course contents (e.g. video and audio files) to be downloaded to client's device. The System may allow the download of the video file to the client's device in encrypted form to save the bandwidth.
- For online professional support module, the Service Provider need to cater the performance and bandwidth in recording mode.
- The Website and Mobile Apps shall include security protection methods including but not limited to: SSL, HTTPS and data encryption; that comply with "OWASP Top 10 Vulnerabilities".
- The System shall not allow client login more than once at the same time.
- The System shall not allow any screen capture or recording tools to capture the course content in the Website and Mobile apps.
- BOKSS shall provide the hosting environment for testing and production of the site.

- The Website and Mobile apps shall be deployed to the testing environment for testing purposes before its deployment to the live environment for live usage.
- The source code of the whole project shall be opened to BOKSS; and BOKSS reserves the right to change the code for the same project in the future.
- The ownership and intellectual property rights of all the content and data shall be vested in and belong to BOKSS.

1.1.16 Service Provider Services Requirements

- For the Website and Mobile Apps design, the Service Provider shall provide at least three UI/UX layout design templates for BOKSS to choose.
- The Service Provider shall perform project management, development, testing and debugging.
- In the project implementation stage, the Service Provider shall provide on-site staff.
- The Service Provider shall assist BOKSS to apply for all necessary licenses (if applicable).
- The Service Provider shall perform self-security risk assessment prior to major enhancements and changes associated with the Website, Mobile apps and related Modules.
- The Service Provider shall provide free patch installation when any security and OS upgrades are changed within the maintenance period.
- The Service Provider shall provide software maintenance (e.g. bug fixing) and technical support.
- Before deployment, the Service Provider shall perform User Acceptance Test including but not limited to the following:
 - ◆ UAT quality assurance plan
 - ◆ UAT monitor tools to keep track of the UAT status (e.g. Mantis Log)
 - ◆ UAT test cases
 - ◆ The Service Provider shall provide the evidence (e.g. screen capture) to prove the result of any and all bug fixes before they are passed to BOKSS to test.
- The Service Provider shall complete the Website and Mobile apps

deployment in the testing and production environment.

- The Service Provider shall provide user training before the System's official launch.
- Before the formal rollout of the modules for Phase 3 and 4, the Service Provider shall, at its own cost, engage a third party to conduct an independent assessment and audit of the system for each phase and make recommendations for safeguarding the security of the system and the data captured and any actions required to plug any loophole that put the system or data at risk for authorized access or changes. Prior agreement from BOKSS is required before the appointment of the third party for the security check and audit.

1.1.17 The System shall support site traffic measurement and analysis compatible with Google Analytics or other similar tools.

1.1.18 Maintenance Services

The maintenance services shall include but not be limited to the following:

- Response to enquiries related to the use of the functions and programs.
- Repair of the Website and Mobile apps against any failure, security issues including but not limited to bug fixing, within SLA or another period as agreed, upon the request by BOKSS.
- Other maintenance tasks that are deemed necessary for smooth operation of the System as proposed by BOKSS.

1.1.19 The Service Provider shall provide ad hoc services in maintenance activities (e.g. agreed enhancements) on special occasions requested by BOKSS. The amount of payment chargeable shall be calculated based on the actual man-days spent and the rates specified in the contract in relation to the delivery of the required services.

Part 5: Data Volume Estimation

1.1.20 Number of e-learning Course in the System

- Around of 100 course

1.1.21 Online Professional Support Module

- Number of concurrent clients of e-counseling video conference is about 100 (50 - clients and 50 - counselor) .
- Number of concurrent group (each group max. 20 clients) video conference is about 50.

1.1.22 Public Online Group in Level 0

- There are over 500 concurrent client to join the course seminar.

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