Annex C - IV&V Pre-Engagement Scoping Guide

The following Scoping Guide provides a list to consider during the Pre-Engagement phase in order to understand what items will need to be included or not in an RFP and tender document. For more information on various topics, see the sections of the Handbook as noted.

IV&V Scoping Guide			
IV&V Team Member:		**Date:**	
Project:			

#	Category	Subject	Question
1.	Tendering	Type	How will the Tendering process be executed? Please elaborate type of tender such as: (a) open, (b) closed or (c) direct award.
2.	Tendering	Criteria	What are the criteria in choosing the bidders? Please elaborate the required qualifications, experience, financial status, local or international, etc.
3.	Tendering	Timeline	What are the target Tendering key activities? Please specify several key dates of: i. Tender Document Issuance ii. Tender Briefing iii. Tender Closing iv. Tender Opening v. Tender Clarification vi. Tender Evaluation Report Readiness vii. ICT/MANCO Approval viii. Board Approval ix. Negotiation Period x. Contract Drafting Period xi. Project Award xii. Project Commence/Kick-Off
4.	Tendering	Tender Evaluation Process (TEP)	Who approved the TEP for this tendering exercise, who are the appointed members, and what are the tendering and evaluation criteria to be used?

#	Category	Subject	Question
5.	Architecture	Internal System	How will the new system interact with the existing systems? Please elaborate the general overview of the expected interaction between the new system and the existing systems.
6.	Architecture	Legacy System	What system will be retired after the new system go-live? Please elaborate if there are targeted legacy system(s) to be retired after the new project go-live. It's recommended to specify the expectation of transition period, i.e., when the new system go-live until the legacy system(s) is retired.
7.	Architecture	External System	How will the new system interact with external systems? Please elaborate the general overview of the expected interaction between the new system and the external systems.
8.	Architecture	External System	How will the new system accept and process payment? Please elaborate the interaction between new system with the payment gateway or bank system and the internal Enterprise Financial System.
9.	Technical Requirement	User Access	Please select the type of user the system will have.
10.	Technical Requirement	Source Code	Software Development and/or Enhancements: (a) Please specify the programming language expected to be used for the new system or customization works. (d) Please confirm the availability and version of the source code for the software before enhancement.
		COTS	Commercial-of-the-Shelf (COTS) Software: (a) Please ascertain that the COTS software has been certified by the QS Product Certification Scheme.
11.	Technical Requirement	Integration	What are the expected integration to internal and external systems? Please specify the required internal and external systems to be interfaced with.
12.	Technical Requirement	Peripherals Integration	What are the required integration with existing peripherals for the new system to fulfill certain functionalities? Please elaborate the peripherals expected to be interfaced with, e.g., IRIS CS18 MyKard reader, e-Pay Versa300, Epson TMU590 printer.

#	Category	Subject	Question
13.	Technical Requirement	Data Migration	What are the data to be migrated to the new system? Please elaborate the source and target system.
14.	Technical Requirement	System Database	Please specify the preferred system database to be used by the new system, e.g., Microsoft SQL Server, Oracle, MySQL, XML, etc.
15.	Technical Requirement	Storage	What is the requirement for data storage? Please elaborate whether the new system will introduce new set of database or will it utilize the existing database for data storage purposes.
16.	Technical Requirement	Data Consolidation	What is the requirement for a consolidated data for a common/single reports to Stakeholders, agencies or regulatory bodies.
17.	Technical Requirement	Procurement	What is the requirement for the procurement of hardware, software and licenses for this project? Please elaborate whether the appointed vendor will procure all hardware, software and licenses as part of the deliverables or The Agency to procure. It's recommended for the appointed vendor to procure as part of project activities, and to avoid unnecessary delay due to internal approval processes and constraints.
18.	Technical Requirement	Network & security	Please specify the expected network used in accessing the system.
19.	Technical Requirement	Network & security	What is the current bandwidth size for WAN and Internet?
20.	Technical Requirement	Environment	Please specify type of test environment provided for this project
21.	Technical Requirement	Environment	Please state the location for hardware, software and the other environment components to be tested.
22.	Technical Requirement	Environment	How many physical and virtual server planned/designed for this project?
23.	Technical Requirement	Performance - Load	What is the type of load to be measured (e.g., concurrent user)?
24.	Technical Requirement	Performance - Load	What is the expected load for the system to be tested?

#	Category	Subject	Question
25.	Technical Requirement	Performance - Load	When is the time in a day for the above expected load?
26.	Technical Requirement	Performance - Load	What is the frequency of the expected load in a month's time?
27.	Technical Requirement	Performance - Load	What are the current daily and monthly loads of the system?
28.	Technical Requirement	Performance - Load	When are the maximum/highest load recorded/experienced for the current daily and month load?
29.	Technical Requirement	Performance - Stress	What is the stress point(s)?
30.	Technical Requirement	Performance - Stress	What is the anticipated maximum load for the stress point(s)?
31.	Technical Requirement	Performance - Stress	When is the expected time the system would reach its stress point?
32.	Technical Requirement	Performance - Stress	How frequent would the system reach its stress point in a month's time?
33.	Technical Requirement	Performance - Stress	How many concurrent users can the system handle at a normal load?
34.	Technical Requirement	Performance - Stress	What kind of load balancing mechanism in use, if any?
35.	Technical Requirement	Performance - Stress	What is the acceptable response time for your system?
36.	Technical Requirement	Performance - Stress	Is the application server shared with other systems? Please name the other systems (if necessary)
37.	Technical Requirement	Performance - Stress	What are the expected load scenario and load distribution for this system referring to internal and external users. Please specify the load in percentage figure.
38.	Technical Requirement	Network & security	Please select vulnerabilities that need to be test. Reference: OWASP Top Ten
39.	Technical Requirement	Network & security	Please specify the security tools/ mechanism used in your organization.

#	Category	Subject	Question
40.	Technical Requirement	Network & security	Should the system administration privileges be tested?
41.	Architecture	User Access	How will the new system handle the user access from various stakeholders, covering the internal staff, and external partners (if any)?
42.	Architecture	Enterprise Financial System	How will the new system interact with existing Enterprise Financial System such as SAP?
43.	Architecture	Reports	How will the new system comply to operational and financial requirement on reports? Please elaborate type and location of reports that will be generated from the new system.
44.	Architecture	Core Technology	What is the core technology preferred for this new system? Please elaborate the preference of Windows, Linux, Unix, or mixture of those, etc.
45.	Architecture	Single Sign-On	How will the new system manage user access and its integration with Active Directory for Single Sign-On?
46.	Architecture	Security Compliance	How will the new system comply with security rules and guidelines? Please elaborate security features expected from the new systems.
47.	Architecture	Topology	What is the target application architecture for the new system? Please elaborate the topology and the on-site server (if any).
48.	Functional Requirement	Agency Reports	What are the required agency reports to be produced by the new systems?
49.	Functional Requirement	Admin	What are the Admin function requirements? Please specify the functionalities expected from the new system.
50.	Functional Requirement	General	Please state the list of modules expected in the new system.
51.	Functional Requirement	General	Please state the purpose of the system
52.	Functional Requirement	Methodology	Please state project methodology used in development of the system

#	Category	Subject	Question
53.	Functional Requirement	General	Please state the version of the system to be test
54.	Functional Requirement	Technical project documents	Please state the documentation availability for the system
55.	Project Mgmt.	Project Timeline	Coding duration of 3 months is too short, what is the acceptable duration in order to avoid Change Request for Extension of Time due to unrealistic projection?
56.	Project Mgmt.	Approval Lead Time	The timeline didn't factor in the internal review and approval lead time. What is the acceptable lead time for internal review and approval circulation?
57.	Project Mgmt.	Help Desk during Rollout	What is the requirement for the support during Pilot Rollout and Nationwide Rollout? Please elaborate these requirements to ensure the will be vendor's support and participation for a smooth rollout plan.
58.	Project Mgmt.	Project Governance	What is the expected project governance for this project? Please elaborate the project governance structure, SC Meeting and Progress Meeting. Also to specify the documents to be submitted for the meeting types.
59.	Project Mgmt.	On-site Resources	What is the requirement for vendor's on-site team? Please elaborate the requirement for on-site team to be present at specific office location.
60.	Project Mgmt.	Methodology	What project management methodology to be used in this project? Please elaborate the requirement such as PMBOK or Prince.
61.	Project Mgmt.	Dependency	Is there any known dependencies (internal or external) affecting the project delivery? If yes, please specify.
62.	Contract Agreement	Condition Precedent	What are the Condition Precedent items before the appointed vendor is allowed to start the project? Please elaborate CP items such as submission of Performance Bond, Insurance(s), setting-up local team, mobilize on-site team, etc.
63.	Contract Agreement	Contract Period	What is the contract period for Kick-Off to the completion of nationwide rollout?

#	Category	Subject	Question
64.	Contract Agreement	Payment Schedule	What is the target payment structure and payment schedule for the project? Please elaborate the expected payment progress and the amount in percentage to be used. It's recommended for the payment based on user acceptance rather than time-based or submission without user acceptance.
65.	Contract Agreement	Performance Bond	What is the percentage for the Performance Bond for the project?
66.	Contract Agreement	Liquidated Ascertain Damages (LAD)	What is the formula used to calculate the LAD and when will LAD be executed?
67.	Contract Agreement	Project Insurance	What type of project insurance needed for this project, and what is the coverage?
68.	Contract Agreement	Source Code	What is the requirement at the end of development/customization: (a) For Non-COTS software: • When will the source code be handed over? (b) For Commercial-of-the-Shelf (COTS) Software: • Can the percentage of customization against the original COTS be determined? • Should the COTS software undergo re-certification by the QA Product Certification Scheme to establish the stability of its core after customization?
69.	Contract Agreement	Pilot Rollout	What is the scope of Pilot Rollout, and what is the targeted pilot size/branch?
70.	Contract Agreement	Nationwide Rollout	What is the scope of Nationwide Rollout, and what is the targeted size/PC/branch?
71.	Contract Agreement	Service Penalty	What is the service penalty charged to the appointed vendor: (a) For delay in delivering the System Under Test (SUT) as agreed in the Integrated Project Plan (IPP)? (b) For delay in fixing defects raised by IV&V against the SLA? (c) As a consequence of system failure to be charged to the appointed vendor during the nationwide rollout?

#	Category	Subject	Question
72.	Contract Agreement	Transfer of Technology	What are the expected transfer of technology from this project? Please elaborate ToT (Transfer of Technology) for: (a) Join Development type (b) Specific Certification type (c) Front-end technology type (d) Back-end technology type (e) Attending specific technology showcase/training type (f) Overseas exposure type
73.	Contract Agreement	Warranty	What are the requirement for the expected services during Warranty Period? Please elaborate type of activities/tasks to be performed by the appointed vendor and the frequency.
74.	Software Testing	Resources & SME	Specific project team members or SMEs been identified and appointed to participate in software testing activities to work together with testing team covering the functional, non-functional, performance and provisioning areas. It's recommended for the below minimum SMEs to be assigned: (a) Business Analyst (b) System Architect/SME (c) Database expert/SME (d) Network expert/SME (e) Finance expert/SME (f) Project Manager from the appointed vendor(s) side (g) Business/System Analyst from the appointed vendor(s) side
75.	Software Testing	Test laboratory (Test Lab)	Specific location or room been identified and assigned to be used as a dedicate Test Lab area equipped with the required facilities (including appropriate test automation) to perform software testing activities.
76.	Software Testing	Test laboratory (Test Lab)	Please specify the number of PCs allocated or planned to be in the test lab?
77.	Software Testing	Test laboratory (Test Lab)	Please specify the required software license(s) and/or test automation needed for the Test Lab?
78.	Software Testing	Test facilities	Specific team has been identified and assigned to provide and maintain the facilities in Test Lab.

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#	Category	Subject	Question
79.	Software Testing	Test data	Specific data been identified and created to represent the data system to be used as the test data for the software testing to be performed. It's recommended to early identify the front-end data input and the back-end data to be used in the Test Lab.
80.	Software Testing	Technical project documents	Specific technical project documents were prepared and signed-off by The Agency's project Stakeholders to be used as the reference documents for software testing. It's recommended for the below minimum technical project documents to be made available to testing team: (a) System Architecture Document (b) Application Design Document (c) Database Design Document (d) Network Architecture Document
81.	Software Testing	Network & security	Network and security has been identified and assigned to the Test Lab separate from the production environment, and has the access to the required internal and external test systems, for the software testing to be performed.
82.	Software Testing	Remote access	Specific Virtual Private Network (VPN) and security access are identified for IV&V Provider to perform remote access to the assigned Test Lab for remote configuration and software testing to be performed. Please elaborate the VPN, tools and/or remote configurations to be used.
83.	Software Testing	Type of Testing	Has the decision being made for IV&V Provider to conduct Functional Testing which covers System and Acceptance tests?
84.	Software Testing	Type of Testing	Has the decision being made for IV&V Provider to conduct Security Testing which covers System and Acceptance tests?
85.	Software Testing	Type of Testing	Has the decision being made for IV&V Provider to conduct Load Testing which covers System and Acceptance tests?
86.	Software Testing	Type of Testing	Has the decision being made for IV&V Provider to conduct Stress Testing which covers System and Acceptance tests?
87.	Compliance	AMLA	Is the new system needs to comply to Anti-Money Laundering Act (AMLA)?
88.	Compliance	AMLA	If the new system should be AMLA compliance, please specify the third party system, its version and supplier.

#	Category	Subject	Question
89.	Compliance	PDPA	Is the new system needs to comply to Personal Data Protection Act (PDPA)?
90.	Compliance	General	Please specify any other compliance requirement imposed on the new system?
91.	Compliance	Technical project documents	Please specify the standard used to enhance the security mechanism to overcome threats/vulnerabilities?