



Office of the Government Chief Information Officer
The Government of the Hong Kong Special Administrative Region

**EFFECTIVE SYSTEMS ANALYSIS AND DESIGN
GUIDE
APPENDIX B
RACI MATRIX, CHECKLISTS AND RTM
[G61b]**

Version: 1.1

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Amendment History				
Change Number	Revision Description	Section Affected	Revision Number	Date
1	As detailed in 1.01 to 1.03		1.1	December 2016
1.01	Add the “RACI Matrix” section	1 (<i>New</i>)		
1.02	Add the Business Requirements field in the table of “Requirements Traceability Matrix field details”	3(b)		
1.03	Move the SA&D report template to Appendix C	Remove SA&D report template of v1.0		

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1 RACI MATRIX

- (a) A responsibility assignment matrix shown below describes the participation by various roles in completing tasks or deliverables in the SA&D phase.
- (b) The following illustrates the RACI model by project roles and key processes.

Role	Responsibility
Responsible (“R”)	Has the duty and obligation to complete the activity
Accountable (“A”)	Has the authority as the ultimate decision maker
Consult (“C”)	Has the expertise, experience, and interests who must be given the opportunity to influence decisions prior to finalisation by the “accountable” or “responsible” party
Informed (“I”)	Keeps up-to-date about the activity progress, usually upon completion of the activity

RACI Matrix (Legend: R - Responsible; A - Accountable; C - Consulted; I – Informed)

Role Process	Business Analyst	Business User	Systems Analyst	PAT / PSC	Systems Architect	Internal Project Manager
Current Environment Description						
Current System Description	C	CI	R	AC	I	R ¹
Current Business Process	C	CI	R	AC	I	R

¹ The Internal Project Manager is responsible (R) for managing all the project/deliverables, but is not the owner of each process. For simplicity, PM is deliberately left out in the "Key Roles & Responsibilities" in each process

Role / Process	Business Analyst	Business User	Systems Analyst	PAT / PSC	Systems Architect	Internal Project Manager
Current Problems and Issues	C	CI	R	AC	I	R
Requirements Specification						
User Requirements Document						
Future Business Process	R	CI	C	AC	I	R
Functional Requirements	R	CI	C	AC	I	R
Non-functional Requirements	R	CI	C	AC	I	R
Technical Requirements	C	I	R	AC	C	R
System Specification						
Functional Specification	C	I	R	AC	C	R
Architecture Design	I	I	R	AC	RA	R
System Design	I	I	R	AC	R	R
Technical System Option						
Technical System Architecture	I	I	R	AC	R	R
Sizing Model	C	CI	R	AC	C	R
Cost / Benefit Evaluation	C	CI	R	AC	I	R

Role Process	Business Analyst	Business User	Systems Analyst	PAT / PSC	Systems Architect	Internal Project Manager
Impact Analysis	C	CI	R	AC	I	R
Implementation Plan	C	CI	R	AC	C	R

2 DECISION CHECKLIST

Consideration Factors	
Project Scale and Complexity	<input type="checkbox"/> Small Project <input type="checkbox"/> Large Project
Project Type	Is project building a new system from scratch? <input type="checkbox"/> Yes <input type="checkbox"/> No
	Is project enhancing existing functionality in current system? <input type="checkbox"/> Yes <input type="checkbox"/> No
	Is project replacing the current system? <input type="checkbox"/> Yes <input type="checkbox"/> No
System Dependencies	Does project involve multiple system interfaces within or across the department? (e.g. batch files, FTP, CSV, web-services, etc.) <input type="checkbox"/> Yes <input type="checkbox"/> No
Stakeholder Complexity	Does project involve multiple groups / large number of stakeholders? <input type="checkbox"/> Yes <input type="checkbox"/> No
Solution Approach	<input type="checkbox"/> Project is a packaged solution <input type="checkbox"/> Project is a custom-built system <input type="checkbox"/> Project is a Mobile App
Documents up-to-date	Does project deliverable already exist in system documents? <input type="checkbox"/> Yes <input type="checkbox"/> No
	Were project deliverables recently conducted in FS / ISSS / DITP? <input type="checkbox"/> Yes <input type="checkbox"/> No if yes, in which document(s): FS <input type="checkbox"/> / ISSS <input type="checkbox"/> / DITP <input type="checkbox"/>
Technical System Option already confirmed	Did the project tender specify the technical system option? <input type="checkbox"/> Yes <input type="checkbox"/> No

Consideration Factors	
	Did the contractor team recommend a technical system option in proposal? <input type="checkbox"/> Yes <input type="checkbox"/> No
Client Application (UI Only)	<input type="checkbox"/> Yes <input type="checkbox"/> No

3 REQUIREMENTS TRACEABILITY MATRIX

- (a) The Requirements Traceability Matrix provides guidance to users to track bi-directional horizontal traceability through the duration of the project. Note: If the project is using a tool, this spreadsheet defines the minimal expectations for tool configuration to adequately track bi-directional traceability.
- (b) Instructions:
- i) Ensure the content is validated and updated.
 - ii) Establish horizontal traceability across disciplines recorded in the table.
 - iii) The fields in the table may be populated in accordance with the details provided in the table below:

Requirements Traceability Matrix field details:

Field	Description
Business Requirements Discipline	
Business Requirements	The business requirements that define business needs for the business area concerned to address the current problems and create new opportunities for continuous service improvements.
Business Process Modelling Discipline	
Business Process Model	The requirements that would map to the Business Process Models
Requirement ID / Use Case ID/ User Story ID	Name and ID of the User Requirement/Use Case/User Story that addresses the requirement, if any
Analysis and Design Discipline	
Function ID	This column should include the name of the relevant deliverable that would map to these requirements, e.g. System Specification
Related system	Related system/subsystem(s) that cover the these requirements, e.g. document management system
Architecture & System Design section	This column should include the name of the relevant deliverable(s) that would map to these requirements, e.g. Logical Data Model
Test Discipline	
Unit Test Case ID	The Test Case ID maps to the test case that was executed for the requirement during the Unit Test
System Test Case ID	The Test Case ID maps to the test case that was executed for the requirement during the System Test
User Acceptance Test Case ID	The Test Case ID maps to the test case that was executed for the requirement during the User Acceptance Test

The Requirements Traceability Matrix Template

Sample:

Business Requirements	Business Process Model	Requirement ID/Use Case ID/ User Story ID	Function ID	Related System	Architecture & System Design section	Unit Test Case ID	System Test Case ID	User Acceptance Test Case ID
<i>e.g. B1</i>	<i>Figure 1</i>	<i>UseCase-1</i>	<i>System Specification</i>	<i>Document Management System</i>	<i>Design Application Section 3.3.1</i>	<i>UnitTest-1</i>	<i>ST-1</i>	<i>UAT-1</i>