



APPLICATION MAINTENANCE STANDARDS

VERSION 1.0

FEBRUARY 7, 2007

Information and Technology Management Branch

❖ IM / IT Standards & Guidelines ❖

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Document Purpose

Ministry's existing ADE process and web site defines standards, guidelines and deliverables for New Application development falling into different roadmaps. It is desirable to extend these existing standards, guidelines and deliverables to Application Maintenance projects as well. The purpose of this document is to provide standards and guidelines on various ADE deliverables that need to be produced by Application maintenance projects. Operational deliverables such as Database Change Request (DCR), Middle-Tier Service Request (MTSR) etc. that are necessary for Maintenance projects are not described in this document but these are described on the ADE web site. *Emergency Fix deliverables* are out of scope for this document and these are described in "*Emergency Fix standards*", which will be available at a later date. The document assumes that the reader is familiar with the Ministry's ADE process, roadmaps, deliverables and the ADE web site.

Maintenance Phase Deliverables

Not all ADE deliverables of a particular roadmap are applicable to all maintenance projects. In order to determine what ADE deliverables are applicable to a Maintenance Project in a given roadmap, it is necessary to establish the type of changes that the Application is undergoing during the maintenance. The ADE process identifies six broad types of changes that an application could undergo in a maintenance project.

- Change in Business Logic
- Change in Data Structures
- Change in User Interface
- Change in Technical Architecture
- Change in Application Architecture
- Change in Application Security

These six types of changes help determine what deliverables are applicable to a Maintenance project. If an application is undergoing more than one or all of the six types of changes, then the deliverables applicable would be the "Union" of the deliverables applicable for each type of change.

Some of the Maintenance deliverables for a given type of change need to be produced "as required". For example, when change in business logic takes place, the "Glossary" deliverable needs to be produced only if new business terminology is arising out of the modified business logic. Similarly, "Training and Support Materials" needs to be produced only if user re-training is needed because of the changes in the User interface.

Emergency Fix Deliverables

When an emergency fix is to be carried out, it is often not practical to produce (or update) the required Maintenance documentation before the fix is applied, except for the necessary operational documentation such as DCR, MTSR etc.

Due to the adhoc and unscheduled nature of Emergency fixes, the standards and deliverables are different than those for regular scheduled maintenance projects. Standards and deliverables for Emergency Fix are described in a separate document titled “*Emergency Fix Standards*,” which will be available at a later date.

Roadmap-wise Deliverables matrix for Maintenance Projects

Web Tier Route – Low risk

	<u>Deliverable Name</u>	<u>Deliverable Format</u>	<u>Change in Business Logic</u>	<u>Change in Data Structures</u>	<u>Change in User Interface</u>	<u>Change in Technical Architecture</u>	<u>Change in Application Architecture</u>	<u>Change in Application Security</u>
	<u>System Development Deliverables</u>							
1.	Glossary	Template						
2.	High Level Business Function Model	Model						
3.	Initial Business Data Model	Model						
4.	Business Requirements Document (BRD)	Template						
5.	Technical Architecture Document	Template						
6.	System Data Model	Model						
7.	System Function Model	Model						
8.	System Process Model	Model						
9.	Application Architecture Document	Template						
10.	Application Design Deliverables as defined in the Application Architecture Document or Module Functional Documentation and Module Technical Documentation	As listed in AA document (section 3)						
11.	Logical Database Design	Model						
12.	Analysis, Design & Architecture Document (ADA) (Consolidates the deliverables 4,5,6,7,10,12,21,22)	Template	●	●	●	●	●	●
13.	Data Conversion Strategy	Template						
14.	Testing Strategy	Template						
15.	Training and Support Strategy	Template						
16.	Physical Database Design	Server Model						
17.	Production Database DDL	Scripts		●				

- A dot in a cell (“●”) indicates the deliverable is applicable and mandatory.
- A circle in a cell (“○”) indicates the deliverable is to be produced as required, depending on the situation.
- If more than one column is applicable for a Maintenance project (such as “Change in Business logic” as well as “Change in User Interface”), then cells under all the applicable columns are to be treated as deliverables.

18.	Application Source Code	Source code with documentation; EAR file etc.	●	●	●	●	●	●
19.	Runtime Meta Data	Metadata (format TBD)	●	●	●	●	●	●
20.	Conversion Modules	Scripts						
21.	Converted and Verified Data	Data						
22.	User Acceptance Test Plan	Scripts						
23.	Implementation Plan	Template						
24.	Operations Support Guide	Template						
25.	Training and Support Materials	Template						
	<u>Project Management Deliverables</u>							
26.	Feasibility Study	TBD						
27.	Project / Initiative Overview (PIO)	Template	●	●	●	●	●	●
28.	Project Charter	Template						
29.	Project Workplan	Template or MS Project Workplan in Ministry prescribed format	●	●	●	●	●	●
30.	Light Master Project Plan (MPP-Lite)	Template	●	●	●	●	●	●
31.	Master Project Plan (MPP)	Template						
32.	Risk Information Sheet	Template						
33.	Project Issue Form	Template						
34.	Project Change Request Form	Template						
35.	Project Status Report	Template	●	●	●	●	●	●
36.	Project Evaluation Document	Template						
37.	Project Completion Checklist	Template	●	●	●	●	●	●

- A dot in a cell ("●") indicates the deliverable is applicable and mandatory.
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- If more than one column is applicable for a Maintenance project (such as "Change in Business logic" as well as "Change in User Interface"), then cells under all the applicable columns are to be treated as deliverables.

	<u>Quality Management Deliverables</u>							
38.	Project Component Delivery Information (PCDI)	Template						
39.	Quality Control Items List (QCIL)	Template	●	●	●	●	●	●

- A dot in a cell ("●") indicates the deliverable is applicable and mandatory.
- A circle in a cell ("⊙") indicates the deliverable is to be produced as required, depending on the situation.
- If more than one column is applicable for a Maintenance project (such as "Change in Business logic" as well as "Change in User Interface"), then cells under all the applicable columns are to be treated as deliverables.

Java/J2EE Route – Low risk

	<u>Deliverable Name</u>	<u>Deliverable Format</u>	<u>Change in Business Logic</u>	<u>Change in Data Structures</u>	<u>Change in User Interface</u>	<u>Change in Technical Architecture</u>	<u>Change in Application Architecture</u>	<u>Change in Application Security</u>
	<u>System Development Deliverables</u>							
1.	Glossary	Template						
2.	High Level Business Function Model	Model						
3.	Initial Business Data Model	Model						
4.	Business Requirements Document (BRD)	Template						
5.	Technical Architecture Document	Template						
6.	System Data Model	Model						
7.	System Function Model	Model						
8.	System Process Model	Model						
9.	Application Architecture Document	Template						
10.	Application Design Deliverables as defined in the Application Architecture Document or Module Functional Documentation and Module Technical Documentation	As listed in AA document (section 3)						
11.	Logical Database Design	Model						
12.	Analysis, Design & Architecture Document (ADA) (Consolidates the deliverables 4,5,6,7,10,12,21,22)	Template	●	●	●	●	●	●
13.	Data Conversion Strategy	Template						
14.	Testing Strategy	Template						
15.	Training and Support Strategy	Template						
16.	Physical Database Design	Server Model						
17.	Production Database DDL	Scripts		●				

- A dot in a cell ("●") indicates the deliverable is applicable and mandatory.
- A circle in a cell ("○") indicates the deliverable is to be produced as required, depending on the situation.
- If more than one column is applicable for a Maintenance project (such as "Change in Business logic" as well as "Change in User Interface"), then cells under all the applicable columns are to be treated as deliverables.

18.	Application Source Code	Source code with documentation ; EAR file etc.	●	●	●	●	●	●
19.	Runtime Meta Data	Metadata (format TBD)	●	●	●	●	●	●
20.	Conversion Modules	Scripts						
21.	Converted and Verified Data	Data						
22.	User Acceptance Test Plan	Scripts						
23.	Implementation Plan	Template						
24.	Operations Support Guide	Template						
25.	Training and Support Materials	Template						
	<u>Project Management Deliverables</u>							
26.	Feasibility Study	TBD						
27.	Project / Initiative Overview (PIO)	Template	●	●	●	●	●	●
28.	Project Charter	Template						
29.	Project Workplan	Template or MS Project Workplan in Ministry prescribed format	●	●	●	●	●	●
30.	Light Master Project Plan (MPP-Lite)	Template	●	●	●	●	●	●
31.	Master Project Plan (MPP)	Template						
32.	Risk Information Sheet	Template						
33.	Project Issue Form	Template						
34.	Project Change Request Form	Template						
35.	Project Status Report	Template	●	●	●	●	●	●
36.	Project Evaluation Document	Template						
37.	Project Completion Checklist	Template	●	●	●	●	●	●

- A dot in a cell ("●") indicates the deliverable is applicable and mandatory.
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- If more than one column is applicable for a Maintenance project (such as "Change in Business logic" as well as "Change in User Interface"), then cells under all the applicable columns are to be treated as deliverables.

	<u>Quality Management Deliverables</u>							
38.	Project Component Delivery Information (PCDI)	Template						
39.	Quality Control Items List (QCIL)	Template	●	●	●	●	●	●

- A dot in a cell ("●") indicates the deliverable is applicable and mandatory.
- A circle in a cell ("⊙") indicates the deliverable is to be produced as required, depending on the situation.
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Java/J2EE Route – Medium risk

	<u>Deliverable Name</u>	<u>Deliverable Format</u>	<u>Change in Business Logic</u>	<u>Change in Data Structures</u>	<u>Change in User Interface</u>	<u>Change in Technical Architecture</u>	<u>Change in Application Architecture</u>	<u>Change in Application Security</u>
	<u>System Development Deliverables</u>							
1.	Glossary	Template	⊙					
2.	High Level Business Function Model	Model	●		⊙			
3.	Initial Business Data Model	Model						
4.	Business Requirements Document (BRD)	Template						
5.	Technical Architecture Document	Template				●		●
6.	System Data Model	Model		●				⊙
7.	System Function Model	Model	●		⊙			⊙
8.	System Process Model	Model						
9.	Application Architecture Document	Template			●		●	
10.	Application Design Deliverables as defined in the Application Architecture Document or Module Functional Documentation and Module Technical Documentation	As listed in AA document (Section 3)	●	●	●		●	●
11.	Logical Database Design	Model		●				
12.	Analysis, Design & Architecture Document (ADA) (Consolidates the deliverables 4,5,6,7,10,12,21,22)	Template						
13.	Data Conversion Strategy	Template						
14.	Testing Strategy	Template	●	●	●	●	●	●
15.	Training and Support Strategy	Template						
16.	Physical Database Design	Model		●				
17.	Production Database DDL	Scripts		●				

- A dot in a cell ("●") indicates the deliverable is applicable and mandatory.

- A circle in a cell ("⊙") indicates the deliverable is to be produced as required, depending on the situation.

- If more than one column is applicable for a Maintenance project (such as "Change in Business logic" as well as "Change in User Interface"), then cells under all the applicable columns are to be treated as deliverables.

18.	Application Source Code	Source code with documentation; EAR file etc.	●	●	●	●	●	●
19.	Runtime Meta Data	Metadata (format TBD)	●	●	●	●	●	●
20.	Conversion Modules	Scripts						
21.	Converted and Verified Data	Data						
22.	User Acceptance Test Plan	Scripts	●	●	●	●	●	●
23.	Implementation Plan	Template	●	●	●	●	●	●
24.	Operations Support Guide	Template						
25.	Training and Support Materials	Template			⊙			⊙
	<u>Project Management Deliverables</u>							
26.	Feasibility Study	TBD	⊙	⊙	⊙	⊙	⊙	⊙
27.	Project / Initiative Overview (PIO)	Template	●	●	●	●	●	●
28.	Project Charter	Template						
29.	Project Workplan	Template or MS Project Workplan in Ministry prescribed format	●	●	●	●	●	●
30.	Light Master Project Plan (MPP-Lite)	Template	●	●	●	●	●	●
31.	Master Project Plan (MPP)	Template						
32.	Risk Information Sheet	Template	⊙	⊙	⊙	⊙	⊙	⊙
33.	Project Issue Form	Template	⊙	⊙	⊙	⊙	⊙	⊙
34.	Project Change Request Form	Template	⊙	⊙	⊙	⊙	⊙	⊙
35.	Project Status Report	Template	●	●	●	●	●	●
36.	Project Evaluation Document	Template	●	●	●	●	●	●
37.	Project Completion Checklist	Template	●	●	●	●	●	●

- A dot in a cell (“●”) indicates the deliverable is applicable and mandatory.

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	<u>Quality Management Deliverables</u>							
38.	Project Component Delivery Information (PCDI)	Template						
39.	Quality Control Items List (QCIL)	Template	●	●	●	●	●	●

- A dot in a cell ("●") indicates the deliverable is applicable and mandatory.
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Java/J2EE Route – High risk

	<u>Deliverable Name</u>	<u>Deliverable Format</u>	<u>Change in Business Logic</u>	<u>Change in Data Structures</u>	<u>Change in User Interface</u>	<u>Change in Technical Architecture</u>	<u>Change in Application Architecture</u>	<u>Change in Application Security</u>
	<u>System Development Deliverables</u>							
1.	Glossary	Template	⊙					
2.	High Level Business Function Model	Model	●		⊙			
3.	Initial Business Data Model	Model						
4.	Business Requirements Document (BRD)	Template						
5.	Technical Architecture Document	Template		●		●		●
6.	System Data Model	Model		●				⊙
7.	System Function Model	Model	●					⊙
8.	System Process Model	Model			⊙			
9.	Application Architecture Document	Template			●		●	
10.	Application Design Deliverables as defined in the Application Architecture Document or Module Functional Documentation and Module Technical Documentation	As listed in AA document (Section 3)	●	●	●		●	●
11.	Logical Database Design	Model		●			⊙	
12.	Analysis, Design & Architecture Document (ADA) (Consolidates the deliverables 4,5,6,7,10,12,21,22)	Template						
13.	Data Conversion Strategy	Template						
14.	Testing Strategy	Template	●	●	●	●	●	●
15.	Training and Support Strategy	Template						
16.	Physical Database Design	Server Model		●			⊙	
17.	Production Database DDL	Script		●			⊙	

- A dot in a cell ("●") indicates the deliverable is applicable and mandatory.

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20.	Conversion Modules	Scripts						
21.	Converted and Verified Data	Data						
22.	User Acceptance Test Plan	Scripts	●	●	●	●	●	●
23.	Implementation Plan	Template	●	●	●	●	●	●
24.	Operations Support Guide	Template						
25.	Training and Support Materials	Template			⊙			⊙
	<u>Project Management Deliverables</u>							
26.	Feasibility Study	TBD	●	●	●	●	●	●
27.	Project / Initiative Overview (PIO)	Template	●	●	●	●	●	●
28.	Project Charter	Template	●	●	●	●	●	●
29.	Project Workplan	Template or MS Project Workplan in Ministry prescribed format	●	●	●	●	●	●
30.	Light Master Project Plan (MPP-Lite)	Template						
31.	Master Project Plan (MPP)	Template	●	●	●	●	●	●
32.	Risk Information Sheet	Template	⊙	⊙	⊙	⊙	⊙	⊙
33.	Project Issue Form	Template	⊙	⊙	⊙	⊙	⊙	⊙
34.	Project Change Request Form	Template	⊙	⊙	⊙	⊙	⊙	⊙
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Forms Services Route – Low risk

	<u>Deliverable Name</u>	<u>Deliverable Format</u>	<u>Change in Business Logic</u>	<u>Change in Data Structures</u>	<u>Change in User Interface</u>	<u>Change in Technical Architecture</u>	<u>Change in Application Architecture</u>	<u>Change in Application Security</u>
	<u>System Development Deliverables</u>							
1.	Glossary	Template						
2.	High Level Business Function Model	Model						
3.	Initial Business Data Model	Model						
4.	Business Requirements Document (BRD)	Template						
5.	Technical Architecture Document	Template						
6.	System Data Model	Model						
7.	System Function Model	Model						
8.	System Process Model	Model						
9.	Application Architecture Document	Template						
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11.	Logical Database Design	Model						
12.	Analysis, Design & Architecture Document (ADA) (Consolidates the deliverables 4,5,6,7,10,12,21,22)	Template	●	●	●	●	●	●
13.	Data Conversion Strategy	Template						
14.	Testing Strategy	Template						
15.	Training and Support Strategy	Template						
16.	Physical Database Design	Server Model						
17.	Production Database DDL	Script		●				

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24.	Operations Support Guide	Template						
25.	Training and Support Materials	Template						
	<u>Project Management Deliverables</u>							
26.	Feasibility Study	TBD						
27.	Project / Initiative Overview (PIO)	Template	●	●	●	●	●	●
28.	Project Charter	Template						
29.	Project Workplan	Template or MS Project Workplan in Ministry prescribed format	●	●	●	●	●	●
30.	Light Master Project Plan (MPP-Lite)	Template	●	●	●	●	●	●
31.	Master Project Plan (MPP)	Template						
32.	Risk Information Sheet	Template						
33.	Project Issue Form	Template						
34.	Project Change Request Form	Template						
35.	Project Status Report	Template	●	●	●	●	●	●
36.	Project Evaluation Document	Template						
37.	Project Completion Checklist	Template	●	●	●	●	●	●

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	<u>Quality Management Deliverables</u>							
38.	Project Component Delivery Information (PCDI)	Template	●	●	●	●	●	●
39.	Quality Control Items List (QCIL)	Template	●	●	●	●	●	●

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Forms Services Route – Medium risk

	<u>Deliverable Name</u>	<u>Deliverable Format</u>	<u>Change in Business Logic</u>	<u>Change in Data Structures</u>	<u>Change in User Interface</u>	<u>Change in Technical Architecture</u>	<u>Change in Application Architecture</u>	<u>Change in Application Security</u>
	<u>System Development Deliverables</u>							
1.	Glossary	Template	⊙					
2.	High Level Business Function Model	Model	●					
3.	Initial Business Data Model	Model						
4.	Business Requirements Document (BRD)	Template						
5.	Technical Architecture Document	Template		●		●		●
6.	System Data Model	Model		●				
7.	System Function Model	Model	●		⊙			
8.	System Process Model	Model						
9.	Application Architecture Document	Template			●		●	
10.	Application Design Deliverables as defined in the Application Architecture Document or Module Functional Documentation and Module Technical Documentation	As listed in AA document (Section 3)	●	●	●		●	●
11.	Logical Database Design	Model		●				
12.	Analysis, Design & Architecture Document (ADA) (Consolidates the deliverables 4,5,6,7,10,12,21,22)	Template						
13.	Data Conversion Strategy	Template						
14.	Testing Strategy	Template	●	●	●	●	●	●
15.	Training and Support Strategy	Template						
16.	Physical Database Design	Server Model		●				
17.	Production Database DDL	Script		●				

- A dot in a cell ("●") indicates the deliverable is applicable and mandatory.
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19.	Runtime Meta Data	Metadata (format TBD)	●	●	●	●	●	●
20.	Conversion Modules	Scripts						
21.	Converted and Verified Data	Data						
22.	User Acceptance Test Plan	Scripts	●	●	●	●	●	●
23.	Implementation Plan	Template	●	●	●	●	●	●
24.	Operations Support Guide	Template						
25.	Training and Support Materials	Template			⊙			⊙
	<u>Project Management Deliverables</u>							
26.	Feasibility Study	TBD	⊙	⊙	⊙	⊙	⊙	⊙
27.	Project / Initiative Overview (PIO)	Template	●	●	●	●	●	●
28.	Project Charter	Template						
29.	Project Workplan	Template or MS Project Workplan in Ministry prescribed format	●	●	●	●	●	●
30.	Light Master Project Plan (MPP-Lite)	Template	●	●	●	●	●	●
31.	Master Project Plan (MPP)	Template						
32.	Risk Information Sheet	Template	⊙	⊙	⊙	⊙	⊙	⊙
33.	Project Issue Form	Template	⊙	⊙	⊙	⊙	⊙	⊙
34.	Project Change Request Form	Template	⊙	⊙	⊙	⊙	⊙	⊙
35.	Project Status Report	Template	●	●	●	●	●	●
36.	Project Evaluation Document	Template						
37.	Project Completion Checklist	Template	●	●	●	●	●	●

- A dot in a cell (“●”) indicates the deliverable is applicable and mandatory.
- A circle in a cell (“⊙”) indicates the deliverable is to be produced as required, depending on the situation.
- If more than one column is applicable for a Maintenance project (such as “Change in Business logic” as well as “Change in User Interface”), then cells under all the applicable columns are to be treated as deliverables.

	<u>Quality Management Deliverables</u>							
38.	Project Component Delivery Information (PCDI)	Template	●	●	●	●	●	●
39.	Quality Control Items List (QCIL)	Template	●	●	●	●	●	●

- A dot in a cell ("●") indicates the deliverable is applicable and mandatory.
- A circle in a cell ("⊙") indicates the deliverable is to be produced as required, depending on the situation.
- If more than one column is applicable for a Maintenance project (such as "Change in Business logic" as well as "Change in User Interface"), then cells under all the applicable columns are to be treated as deliverables.

Forms Services Route – High risk

	<u>Deliverable Name</u>	<u>Deliverable Format</u>	<u>Change in Business Logic</u>	<u>Change in Data Structures</u>	<u>Change in User Interface</u>	<u>Change in Technical Architecture</u>	<u>Change in Application Architecture</u>	<u>Change in Application Security</u>
	<u>System Development Deliverables</u>							
1.	Glossary	Template	⊙					
2.	High Level Business Function Model	Model	●					
3.	Initial Business Data Model	Model						
4.	Business Requirements Document (BRD)	Template						
5.	Technical Architecture Document	Template				●		●
6.	System Data Model	Model		●				⊙
7.	System Function Model	Model	●		⊙			⊙
8.	System Process Model	Model	●	●	●		●	
9.	Application Architecture Document	Template		⊙	●		●	
10.	Application Design Deliverables as defined in the Application Architecture Document or Module Functional Documentation and Module Technical Documentation	As listed in AA document (section 3)	●	●	●		●	●
11.	Logical Database Design	Model		●				
12.	Analysis, Design & Architecture Document (ADA) (Consolidates the deliverables 4,5,6,7,10,12,21,22)	Template						
13.	Data Conversion Strategy	Template						
14.	Testing Strategy	Template	●	●	●	●	●	●
15.	Training and Support Strategy	Template			●			⊙
16.	Physical Database Design	Server Model		●				
17.	Production Database DDL	Script		●				

- A dot in a cell ("●") indicates the deliverable is applicable and mandatory.

- A circle in a cell ("⊙") indicates the deliverable is to be produced as required, depending on the situation.

- If more than one column is applicable for a Maintenance project (such as "Change in Business logic" as well as "Change in User Interface"), then cells under all the applicable columns are to be treated as deliverables.

18.	Application Source Code	Source code with documentation; EAR file etc.	●	●	●	●	●	●
19.	Runtime Meta Data	Metadata (format TBD)	●	●	●	●	●	●
20.	Conversion Modules	Scripts						
21.	Converted and Verified Data	Data						
22.	User Acceptance Test Plan	Scripts	●	●	●	●	●	●
23.	Implementation Plan	Template	●	●	●	●	●	●
24.	Operations Support Guide	Template						
25.	Training and Support Materials				⊙			⊙
	<u>Project Management Deliverables</u>							
26.	Feasibility Study	TBD	●	●	●	●	●	●
27.	Project / Initiative Overview (PIO)	Template	●	●	●	●	●	●
28.	Project Charter	Template	●	●	●	●	●	●
29.	Project Workplan	Template or MS Project Workplan in Ministry prescribed format	●	●	●	●	●	●
30.	Light Master Project Plan (MPP-Lite)	Template						
31.	Master Project Plan (MPP)	Template	●	●	●	●	●	●
32.	Risk Information Sheet	Template	⊙	⊙	⊙	⊙	⊙	⊙
33.	Project Issue Form	Template	⊙	⊙	⊙	⊙	⊙	⊙
34.	Project Change Request Form	Template	⊙	⊙	⊙	⊙	⊙	⊙
35.	Project Status Report	Template	●	●	●	●	●	●
36.	Project Evaluation Document	Template						
37.	Project Completion Checklist	Template	●	●	●	●	●	●

- A dot in a cell ("●") indicates the deliverable is applicable and mandatory.
- A circle in a cell ("⊙") indicates the deliverable is to be produced as required, depending on the situation.
- If more than one column is applicable for a Maintenance project (such as "Change in Business logic" as well as "Change in User Interface"), then cells under all the applicable columns are to be treated as deliverables.

	<u>Quality Management Deliverables</u>							
38.	Project Component Delivery Information (PCDI)	Template	●	●	●	●	●	●
39.	Quality Control Items List (QCIL)	Template	●	●	●	●	●	●

- A dot in a cell ("●") indicates the deliverable is applicable and mandatory.
- A circle in a cell ("⊙") indicates the deliverable is to be produced as required, depending on the situation.
- If more than one column is applicable for a Maintenance project (such as "Change in Business logic" as well as "Change in User Interface"), then cells under all the applicable columns are to be treated as deliverables.

Mod PL/SQL Route – Low risk

	<u>Deliverable Name</u>	<u>Deliverable Format</u>	<u>Change in Business Logic</u>	<u>Change in Data Structures</u>	<u>Change in User Interface</u>	<u>Change in Technical Architecture</u>	<u>Change in Application Architecture</u>	<u>Change in Application Security</u>
	<u>System Development Deliverables</u>							
1.	Glossary	Template						
2.	High Level Business Function Model	Model						
3.	Initial Business Data Model	Model						
4.	Business Requirements Document (BRD)	Template						
5.	Technical Architecture Document	Template						
6.	System Data Model	Model						
7.	System Function Model							
8.	System Process Model							
9.	Application Architecture Document	Template						
10.	Application Design Deliverables as defined in the Application Architecture Document or Module Functional Documentation and Module Technical Documentation	As listed in AA document (section 3)						
11.	Logical Database Design	Model						
12.	Analysis, Design & Architecture Document (ADA) (Consolidates the deliverables 4,5,6,7,10,12,21,22)	Template	●	●	●	●	●	●
13.	Data Conversion Strategy	Template						
14.	Testing Strategy	Template						
15.	Training and Support Strategy	Template						
16.	Physical Database Design	Server Model						
17.	Production Database DDL			●				

- A dot in a cell ("●") indicates the deliverable is applicable and mandatory.
- A circle in a cell ("○") indicates the deliverable is to be produced as required, depending on the situation.
- If more than one column is applicable for a Maintenance project (such as "Change in Business logic" as well as "Change in User Interface"), then cells under all the applicable columns are to be treated as deliverables.

18.	Application Source Code	Source code with documentation; EAR file etc.	●	●	●	●	●	●
19.	Runtime Meta Data	Metadata (format TBD)	●	●	●	●	●	●
20.	Conversion Modules	Scripts						
21.	Converted and Verified Data	Data						
22.	User Acceptance Test Plan	Scripts						
23.	Implementation Plan	Template						
24.	Operations Support Guide	Template						
25.	Training and Support Materials							
	<u>Project Management Deliverables</u>							
26.	Feasibility Study	TBD						
27.	Project / Initiative Overview (PIO)	Template	●	●	●	●	●	●
28.	Project Charter	Template						
29.	Project Workplan	Template or MS Project Workplan in Ministry prescribed format	●	●	●	●	●	●
30.	Light Master Project Plan (MPP-Lite)	Template	●	●	●	●	●	●
31.	Master Project Plan (MPP)	Template						
32.	Risk Information Sheet	Template						
33.	Project Issue Form	Template						
34.	Project Change Request Form	Template						
35.	Project Status Report	Template	●	●	●	●	●	●
36.	Project Evaluation Document	Template						
37.	Project Completion Checklist	Template	●	●	●	●	●	●

- A dot in a cell ("●") indicates the deliverable is applicable and mandatory.
- A circle in a cell ("○") indicates the deliverable is to be produced as required, depending on the situation.
- If more than one column is applicable for a Maintenance project (such as "Change in Business logic" as well as "Change in User Interface"), then cells under all the applicable columns are to be treated as deliverables.

	<u>Quality Management Deliverables</u>							
38.	Project Component Delivery Information (PCDI)	Template	●	●	●	●	●	●
39.	Quality Control Items List (QCIL)	Template	●	●	●	●	●	●

- A dot in a cell ("●") indicates the deliverable is applicable and mandatory.
- A circle in a cell ("⊙") indicates the deliverable is to be produced as required, depending on the situation.
- If more than one column is applicable for a Maintenance project (such as "Change in Business logic" as well as "Change in User Interface"), then cells under all the applicable columns are to be treated as deliverables.

Mod PL/SQL Route – Medium risk

	<u>Deliverable Name</u>	<u>Deliverable Format</u>	<u>Change in Business Logic</u>	<u>Change in Data Structures</u>	<u>Change in User Interface</u>	<u>Change in Technical Architecture</u>	<u>Change in Application Architecture</u>	<u>Change in Application Security</u>
	<u>System Development Deliverables</u>							
1.	Glossary	Template	⊙					
2.	High Level Business Function Model	Model	●					
3.	Initial Business Data Model	Model						
4.	Business Requirements Document (BRD)	Template						
5.	Technical Architecture Document	Template				●		●
6.	System Data Model	Model		●				⊙
7.	System Function Model	Model	●					⊙
8.	System Process Model	Model						
9.	Application Architecture Document	Template			●		●	
10.	Application Design Deliverables as defined in the Application Architecture Document or Module Functional Documentation and Module Technical Documentation	As listed in AA document (section 3)	●	●	●		●	●
11.	Logical Database Design			●				
12.	Analysis, Design & Architecture Document (ADA) (Consolidates the deliverables 4,5,6,7,10,12,21,22)	Template						
13.	Data Conversion Strategy	Template						
14.	Testing Strategy	Template	●	●	●	●	●	●
15.	Training and Support Strategy	Template						
16.	Physical Database Design			●				
17.	Production Database DDL			●				

- A dot in a cell ("●") indicates the deliverable is applicable and mandatory.

- A circle in a cell ("⊙") indicates the deliverable is to be produced as required, depending on the situation.

- If more than one column is applicable for a Maintenance project (such as "Change in Business logic" as well as "Change in User Interface"), then cells under all the applicable columns are to be treated as deliverables.

18.	Application Source Code	Source code with documentation; EAR file etc.	●	●	●	●	●	●
19.	Runtime Meta Data	Metadata (format TBD)	●	●	●	●	●	●
20.	Conversion Modules							
21.	Converted and Verified Data							
22.	User Acceptance Test Plan		●	●	●	●	●	●
23.	Implementation Plan	Template	●	●	●	●	●	●
24.	Operations Support Guide	Template						
25.	Training and Support Materials	Template			⊙			⊙
	<u>Project Management Deliverables</u>							
26.	Feasibility Study		⊙	⊙	⊙	⊙	⊙	⊙
27.	Project / Initiative Overview (PIO)	Template	●	●	●	●	●	●
28.	Project Charter	Template						
29.	Project Workplan	Template or MS Project Workplan in Ministry prescribed format	●	●	●	●	●	●
30.	Light Master Project Plan (MPP-Lite)	Template	●	●	●	●	●	●
31.	Master Project Plan (MPP)	Template						
32.	Risk Information Sheet	Template	⊙	⊙	⊙	⊙	⊙	⊙
33.	Project Issue Form	Template	⊙	⊙	⊙	⊙	⊙	⊙
34.	Project Change Request Form	Template	⊙	⊙	⊙	⊙	⊙	⊙
35.	Project Status Report	Template	●	●	●	●	●	●
36.	Project Evaluation Document	Template	●	●	●	●	●	●
37.	Project Completion Checklist	Template	●	●	●	●	●	●

- A dot in a cell ("●") indicates the deliverable is applicable and mandatory.
- A circle in a cell ("⊙") indicates the deliverable is to be produced as required, depending on the situation.
- If more than one column is applicable for a Maintenance project (such as "Change in Business logic" as well as "Change in User Interface"), then cells under all the applicable columns are to be treated as deliverables.

	<u>Quality Management Deliverables</u>							
38.	Project Component Delivery Information (PCDI)	Template	●	●	●	●	●	●
39.	Quality Control Items List (QCIL)	Template	●	●	●	●	●	●

- A dot in a cell (“●”) indicates the deliverable is applicable and mandatory.
- A circle in a cell (“⊙”) indicates the deliverable is to be produced as required, depending on the situation.
- If more than one column is applicable for a Maintenance project (such as “Change in Business logic” as well as “Change in User Interface”), then cells under all the applicable columns are to be treated as deliverables.

GAME Route – Medium risk

	<u>Deliverable Name</u>	<u>Deliverable Format</u>	<u>Change in Business Logic</u>	<u>Change in Data Structures</u>	<u>Change in User Interface</u>	<u>Change in Technical Architecture</u>	<u>Change in Application Architecture</u>	<u>Change in Application Security</u>
	<u>System Development Deliverables</u>							
1.	Glossary	Template	⊙					
2.	High Level Business Function Model	Model	●					
3.	Initial Business Data Model	Model						
4.	Business Requirements Document (BRD)	Template						
5.	Technical Architecture Document	Template				●		●
6.	System Data Model	Model		●				⊙
7.	System Function Model	Model	●					⊙
8.	System Process Model	Model						
9.	Application Architecture Document	Template			●		●	
10.	Application Design Deliverables as defined in the Application Architecture Document or Module Functional Documentation and Module Technical Documentation	As listed in AA document (section 3)	●	●	●		●	●
11.	Logical Database Design	Model		●				
12.	Analysis, Design & Architecture Document (ADA) (Consolidates the deliverables 4,5,6,7,10,12,21,22)	Template						
13.	Data Conversion Strategy	Template						
14.	Testing Strategy	Template	●	●	●	●	●	●
15.	Training and Support Strategy	Template						⊙
16.	Physical Database Design	Server Model		●				
17.	Production Database DDL	Scripts		●				

- A dot in a cell ("●") indicates the deliverable is applicable and mandatory.

- A circle in a cell ("⊙") indicates the deliverable is to be produced as required, depending on the situation.

- If more than one column is applicable for a Maintenance project (such as "Change in Business logic" as well as "Change in User Interface"), then cells under all the applicable columns are to be treated as deliverables.

18.	Application Source Code	Source code with documentation; EAR file etc.	●	●	●	●	●	●
19.	Runtime Meta Data	Metadata (format TBD)	●	●	●	●	●	●
20.	Conversion Modules	Scripts						
21.	Converted and Verified Data	Data						
22.	User Acceptance Test Plan	Scripts	●	●	●	●	●	●
23.	Implementation Plan	Template	●	●	●	●	●	●
24.	Operations Support Guide	Template						
25.	Training and Support Materials	Template			⊙			⊙
	<u>Project Management Deliverables</u>							
26.	Feasibility Study		⊙	⊙	⊙	⊙	⊙	⊙
27.	Project / Initiative Overview (PIO)	Template	●	●	●	●	●	●
28.	Project Charter	Template						
29.	Project Workplan	Template or MS Project Workplan in Ministry prescribed format	●	●	●	●	●	●
30.	Light Master Project Plan (MPP-Lite)	Template	●	●	●	●	●	●
31.	Master Project Plan (MPP)	Template						
32.	Risk Information Sheet	Template	⊙	⊙	⊙	⊙	⊙	⊙
33.	Project Issue Form	Template	⊙	⊙	⊙	⊙	⊙	⊙
34.	Project Change Request Form	Template	⊙	⊙	⊙	⊙	⊙	⊙
35.	Project Status Report	Template	●	●	●	●	●	●
36.	Project Evaluation Document	Template	●	●	●	●	●	●
37.	Project Completion Checklist	Template	●	●	●	●	●	●

- A dot in a cell (“●”) indicates the deliverable is applicable and mandatory.
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	<u>Quality Management Deliverables</u>							
38.	Project Component Delivery Information (PCDI)	Template	●	●	●	●	●	●
39.	Quality Control Items List (QCIL)	Template	●	●	●	●	●	●

- A dot in a cell (“●”) indicates the deliverable is applicable and mandatory.
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GAME Route – High risk

	<u>Deliverable Name</u>	<u>Deliverable Format</u>	<u>Change in Business Logic</u>	<u>Change in Data Structures</u>	<u>Change in User Interface</u>	<u>Change in Technical Architecture</u>	<u>Change in Application Architecture</u>	<u>Change in Application Security</u>
	<u>System Development Deliverables</u>							
1.	Glossary	Template	⊙					
2.	High Level Business Function Model	Model	●					
3.	Initial Business Data Model	Model						
4.	Business Requirements Document (BRD)	Template						
5.	Technical Architecture Document	Template		●		●		●
6.	System Data Model	Model		●				⊙
7.	System Function Model	Model	●		⊙			⊙
8.	System Process Model	Model	●	●	●	●	●	
9.	Application Architecture Document	Template			●		●	
10.	Application Design Deliverables as defined in the Application Architecture Document or Module Functional Documentation and Module Technical Documentation	As listed in AA document (section 3)	●	●	●		●	●
11.	Logical Database Design	Model		●				
12.	Analysis, Design & Architecture Document (ADA) (Consolidates the deliverables 4,5,6,7,10,12,21,22)	Template						
13.	Data Conversion Strategy	Template						
14.	Testing Strategy	Template	●	●	●	●	●	
15.	Training and Support Strategy	Template			●			
16.	Physical Database Design	Server Model		●				
17.	Production Database DDL	Scripts		●				

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20.	Conversion Modules	Scripts						
21.	Converted and Verified Data	Data						
22.	User Acceptance Test Plan	Scripts	●	●	●	●	●	●
23.	Implementation Plan	Template	●	●	●	●	●	●
24.	Operations Support Guide	Template						
25.	Training and Support Materials	Template			⊙			⊙
	<u>Project Management Deliverables</u>							
26.	Feasibility Study	TBD	●	●	●	●	●	●
27.	Project / Initiative Overview (PIO)	Template	●	●	●	●	●	●
28.	Project Charter	Template	●	●	●	●	●	●
29.	Project Workplan	Template or MS Project Workplan in Ministry prescribed format	●	●	●	●	●	●
30.	Light Master Project Plan (MPP-Lite)	Template						
31.	Master Project Plan (MPP)	Template	●	●	●	●	●	●
32.	Risk Information Sheet	Template	⊙	⊙	⊙	⊙	⊙	⊙
33.	Project Issue Form	Template	⊙	⊙	⊙	⊙	⊙	⊙
34.	Project Change Request Form	Template	⊙	⊙	⊙	⊙	⊙	⊙
35.	Project Status Report	Template	●	●	●	●	●	●
36.	Project Evaluation Document	Template						
37.	Project Completion Checklist	Template	●	●	●	●	●	●

- A dot in a cell (“●”) indicates the deliverable is applicable and mandatory.
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	<u>Quality Management Deliverables</u>							
38.	Project Component Delivery Information (PCDI)	Template	●	●	●	●	●	●
39.	Quality Control Items List (QCIL)	Template	●	●	●	●	●	●

- A dot in a cell ("●") indicates the deliverable is applicable and mandatory.
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