

IT ENTERPRISE RELEASE MANAGEMENT

Process Document

Purpose

The purpose of this document is to outline, at a high level, the process together with the roles and responsibilities to execute, manage and govern the ITD Enterprise Release Process. It describes the overall positioning, break down and resources needed to complete the Enterprise Release Process.

The Enterprise Release Management process document provides clear and comprehensive standards and processes for the management of releases across the ITD ecosystem and business units. These standards and processes underpin and guide the functions and activities employed to deliver a quality release management service to the business.

Audience & Applicability

The intended audience are those stakeholders throughout DoE that have a role to play in this process either directly or indirectly as dependent stakeholders. As well as those stakeholders who are interested in the process for execution and governance reasons.

Context

This document is created to provide a framework that underpins the execution and governance of this process. It is the definitive reference material for this process.

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1 Overview and purpose

1.1 Process Overview

Enterprise Release management is a significant component of ITIL's Service Transition Phase. Service Transition is the phase of the ITIL Service Management lifecycle that is responsible for planning and managing release activities. The following diagram shows Service Transition in relationship to other lifecycle components: Service Strategy, Service Design, Service Operation and Continual Service Improvement.

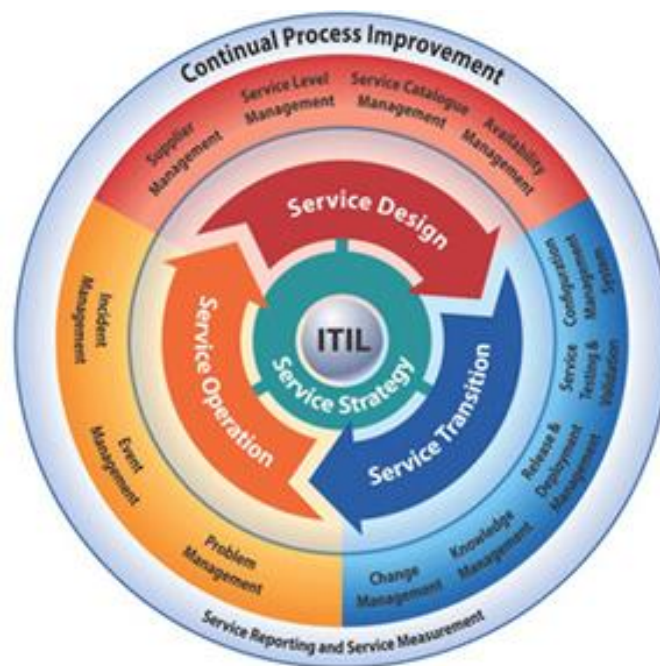


Figure 1 - ITIL lifecycle

1.2 Process purpose

The purpose of the Enterprise Release process is to plan, schedule, and control the build, test, and deployment of releases, and to deliver new functionality required by the business while protecting the production environment and integrity of existing services.

More specifically the purpose of **Enterprise Release Management** within ITD is to:

Define and agree release and deployment management plans with agreed service owners, customers and stakeholders

Create and fully test release package/s that consist of related configuration items that are compatible with each other

The integrity of a release package and its components is maintained throughout the transition activities

Deploy all release packages are into to the live environment following an agreed plan and schedule

Ensure that all release packages can be tracked, installed, tested, verified and/or uninstalled or backed out if appropriate

Record and manage deviations, risks and issues related to our releases and take necessary corrective action

1.3 DoE Enterprise Release Management goal

The goal is to provide a level of standardisation and control that is critical for reasons related to business delivery and production stability, customer experience, regulatory and policy issues, efficiency / effectiveness, monitoring and reporting on the process.

Release Management aims to achieve these outcomes through the following means:

- Working with the PPS and project teams ensuring a risk approach to all releases is considered
- Ensuring all releases follow ITDs agreed release gates and required lead times
- Provide necessary notification of upcoming releases and work with the change management team, our customers and stakeholder groups
- Being a central point of contact for all Release Management activities affecting our Customers, internal and external stakeholders.
- Working within the agreed release windows and boundaries defined as per release types identified with our Release Risk Calculator
- Setting and meeting appropriate lead times to ensure all releases are adequately planned, reviewed and deployed. Providing an efficient review and approval process through the Release Advisory Board (RAB)

1.4 Guiding principles

In designing this process, the following guiding principles were applied:

Purpose: to plan, schedule, and control the build, test, and deployment of **releases**, and to deliver new functionality required by the business while protecting the production environment and integrity of existing services.

Usage: Each Release phase has various release gates, entry and exit criteria that need to be met via approvals mechanism

Management technology: all Releases will be logged and managed in the Service Management technology, namely, Remedy Change module

Enterprise Release Process Ownership: Service Management will own and be accountable for the health of the Enterprise Release Management process

Release Management process: There is one Enterprise Release Management process within DoE

1.5 Scope

The following diagram shows a representation of the scope of Enterprise Release management and how Change Management and Release are linked and work together.

There are 5 lifecycle stages relating to Enterprise Release which are:

Release Planning, Release Build & Test, Release Deployment, Release Early Life Support, Release Review/ Close

- Each Release phase has various release gates,
- Entry and exit criteria needs to be met via approvals mechanism,
- These gates are design to ensure a risk management approach is taken when deploying releases through our ecosystem for internal and external service providers.

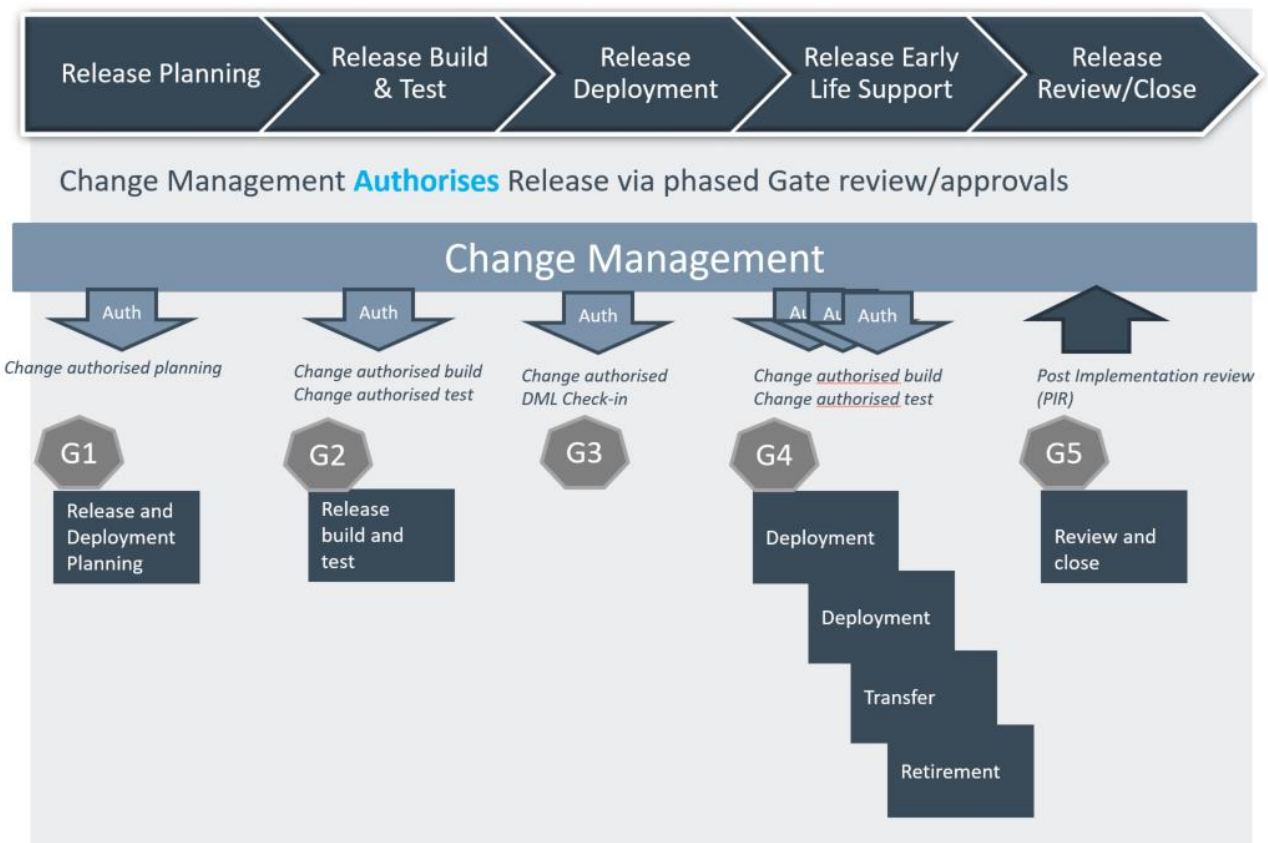


Figure 2 – Release Gate Model

It is imperative that both customers and the company's change organisation understand the events that are considered within the scope of the process.

In this section, the scope is described and includes areas which are both within and outside of the release management process scope.

In Scope	Out of Scope
Custom Software	SandBox environments
Shrink Wrap Software	Non Production software
Scripts/Batch files	Hardware version control
Software Lifecycle from development to obsolete	User Specific Software
Software Distribution	
Vendor releases	
Non-vendor releases	

In Scope	Out of Scope
Environments Development Environments Test Environments Training Environments Pre-production Environments Production Environments	

Additional notes:

Note 1 - Although Enterprise Release management is responsible for ensuring that appropriate testing takes place, the actual testing is carried out as part of the service validation and testing process.

Note 2 – Enterprise Release management is not responsible for authoring changes, and requires authorization from change management at various stages in the lifecycle of a release.

Note 3 - Modifications may be made to the scope periodically to include additional items and this must be circulated to the Directors for sign off.

1.6 Release and PPS Integration

Enterprise Release Management works closely in partnership with DOE PPS. The Release and PPS lifecycles are fully integrated to support business needs. Further details are found in the Release process documentation.

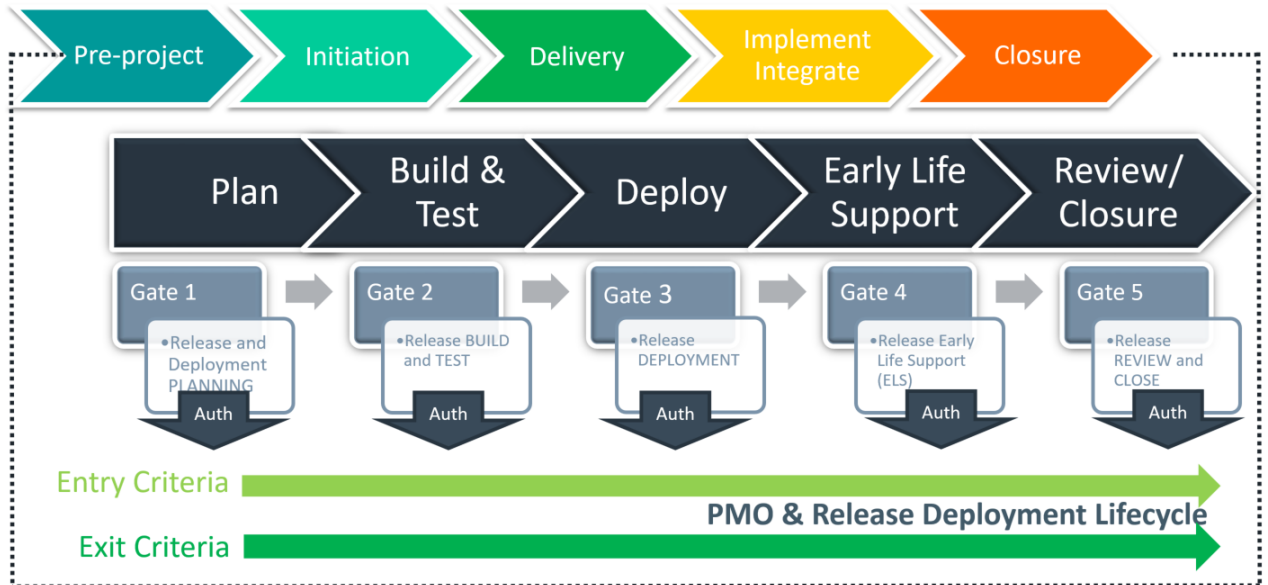


Figure 3 - Release PPS Lifecycle Integration

1.7 Enterprise Release Process Steps

This section contains a quick reference guide to the key compliance areas within the Release Lifecycle: Plan, Build & Test, Deploy, Early Life Support, Review/Closure

1) Release registration via Release Management tool

- a. Risk Assessment Calculation
- b. Pre-project Phase PPS phase documents review
- c. Gate 1 entry criteria met

2) G1 Release Planning Phase approved

- a. Gate 1 exit criteria met
- b. Release Scheduled
- c. Initiation PPS phase documents review
- d. Gate 2 entry criteria met

3) G2 Release Build and Test Phase approved

- a. G2 exit criteria met
- b. Build updates
- c. Test commencement
- d. Defect report review
- e. Delivery PPS phase documents review
- f. G3 entry criteria met

4) G3 Release Deployment phase approved

- a. G3 exit criteria met

- b. Implement PPS phase documents review
 - c. Deployment commencement
 - d. G4 entry criteria met
- 5) G4 Release ELS phase approved**
 - a. G4 exit criteria under review
 - b. Integrate PPS phase documents review
 - c. Defect report review/sign off
- 6) Release Review/Close Phase**
 - a. PIR commencement
 - b. PPS
 - i. Lessons learnt report review
 - ii. End Project report
 - c. RAB PIR
- 7) Completed (Final Review Required)**
- 8) Close Change Record**

1.8 Emergency Enterprise Release Process Steps

This section contains a quick reference guide to the key steps of the emergency Enterprise Release Management process.

- 1) Release registration via Release Management tool**
 - a. Risk Assessment Calculation
 - b. Release registered by tool
 - c. Category Emergency
- 2) Escalate to Release Manager**
 - a. Contact Release manager
 - b. Advise Release Record
- 3) Convene eRAB**
 - a. Release manager to convene eRAB
 - b. Approval?
 - i. If no,
 - review release calculator correct category
 - Update release record in tool
 - ii. If yes,
 - 1. Commence planning with Release team

4) Preparation, Deploy

- a. Communication and stakeholder updates
- b. Commence, Build, Test in approved window
- c. Deployment commencement

5) Heighten support

- a. Additional Early Life Support (ELS)
- b. Defect Management

6) Release Review/Close Phase

- a. Issue resolved?
 - i. If yes, Conduct PIR, update and close record
 - ii. If No, escalation to Release Manager

2 Standards Statements

These standards apply to the management of any release that occurs in relation to services delivered to the our customer base via our Service Management Office (SMO).

The SMO are accountable for ensuring that their respective teams follow the guidelines within this policy statement and the procedures derived from it.

The reason for these policies are to ensure our **Services Thinking Culture**:

A positive customer experience	Because <i>we plan</i> and we consider potential <i>customer impacts and risks</i> we might be introducing
We minimise service outages	We deploy within the <i>agreed business windows</i> to <i>minimise service unavailability</i>
We provide Quality and Risk assurances	By recording all releases and all approval gates as we have end to end integration with the PPS lifecycle
Single source of truth/data	By ensuring all releases are logged in remedy, we can create reports and measure our successes

2.1 Release compliance

The Enterprise Release standard and process aims to ensure we protect the services our customer consume by taking a risk management approach to our deployment activities.

Consequences of any deviation to the single set of Enterprise Release standards or process will be reported to the CIO.

2.2 Release Planning

Type	Description
Release unique ID	A numbering and naming convention must be used in order to: <ul style="list-style-type: none">• Easily distinguish releases• Enable audit trail of each release, minor, moderate, major. See 1.3• Easily identify different releases by name
Deployment types	
Big Bang option	The new or changed service is deployed: <ul style="list-style-type: none">• All users all areas• In one operation
Phased approach	The service planned and deployed <ul style="list-style-type: none">• One location at a time• Geographic locations• Waterfall approach
Release Push	The service is deployed out to target locations as per agreed schedule
Release Pull	The service can be downloaded from a central location at the time of users choice.
Automated release	Automation uses technology or scripts to deploy releases to ensure: <ul style="list-style-type: none">• Repeatability, Consistency• Faster to deploy• Must designed this way and the automation tested
Manual release	Manual efforts require heightened monitoring and measure impact of issues <ul style="list-style-type: none">• May slow down progress

2.3 Release Versions

Release	One or more changes to an IT service that are build, tested and deployed together. A single release may include changes to hardware, software, documentation, processes and other components.
Numbering/Naming conventions	
Major release	V1 for eg SAP V1
Minor release	V1.1 for eg SAP V1.1
Emergency release	V1.1.1 for eg SAP V1.1.1

2.4 Release Type and Release windows

Type	Description
Minor Release	<p>A Minor Release normally containing small enhancements and fixes, some of which may have been issued as emergency fixes.. A minor upgrade or release usually supersedes all preceding emergency fixes.</p> <p>For e.g. Applying a Patch or maintenance this falls under a normal change</p>
Moderate Release	<ul style="list-style-type: none">• A moderate release normally contains moderate enhances and fixed, that may have been grouped together. There is less urgency with this type of release.• The next suitable available window will be used as to schedule this release.• For e.g. Citrix update, TIBCO upgrade.
Major Release	<ul style="list-style-type: none">• A Major Release normally containing large areas of new functionality, some of which may eliminate temporary fixes to problems.• A major upgrade or release usually supersedes al preceding minor upgrades, releases and emergency fixes.
Emergency Release	<ul style="list-style-type: none">• See the Emergency Release Flow• Linked to a Major Incident• Release Manager convenes eRAB to review and risk assess/approve/reject

2.5 Release Scheduling Standard

Title	Policy
Reason for Policy	To maintain production stability and consistently manage all releases
Scheduling Policy Statements	<p><i>All NEW releases;</i></p> <ul style="list-style-type: none"> • Are to be raised within published lead-times • Are to be Risk assessed using our RISK Calculator to identify the risk level of propose deployment • Must be submitted for endorsement during Release planning phase - GATE 1 and • Fully approved prior to implementation for each stage, each phase and each gate • Release must enter and exit via 5 gates with certain criteria that needs to be meet • All releases must contain a minimum content identified in the change tool. <p><i>All completed releases;</i></p> <ul style="list-style-type: none"> • Complete a PPS lessons learnt report • THE PPS LL report is to be reviewed thorough Release PIR meeting • A Release may be closed after: <ul style="list-style-type: none"> ○ Early Life Support (ELS) period has been completed or ○ warranty period satisfied or, ○ all exit criteria has been met • If a release failed and/or is backed out, the release record must be closed and a new one raised.

2.6 Release/Implementation Standard

Title	Policy
Reason for Policy	To ensure releases are planned and implemented accordingly without compromising the stability of the production environment.
Policy Statement	<p>Planning Release must ensure:</p> <ul style="list-style-type: none">• integrity,• stability,• and availability of the nominated service <p>They are also limited to critical turnaround times;</p> <ul style="list-style-type: none">• preferably a maximum of monthly,• to be scheduled in advance meeting lead times,• meet entry and exit criteria through the stage gates <p>Scheduled Maintenance/Prod Support implementations are to be;</p> <ul style="list-style-type: none">• communicated to IT Change Mgmt for inclusion in the IT Change Calendar• includes core and no-core activity

2.7 Release freeze standard

Title	Policy
Reason for Policy	<ol style="list-style-type: none">1. To maintain stability2. Minimise the risk of further production outages3. Ensures resources are available for business critical periods for support and BAU activities4. To minimises disruptions to business
Policy Statement	<p>An IT Release freeze is defined as a period in time where changes/releases may not be implemented into any</p> <ul style="list-style-type: none">• development or• production environments

	<p>An Exemption process can be facilitated when required for releases via a governance and management framework</p> <p>Pre-release</p> <p>Post release</p> <p>Data migration activities</p> <p>Change freezes also apply start and end of term</p> <p>Signification processes</p> <p>End of financial year.</p> <p>See change/release for all details/timing.</p>
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2.8 Exemption Standard

DOE Enterprise Release Management Lifecycle has built-in flexibility to manage changes during Release Freeze periods.

Title	Policy
Reason for Policy	To maintain a stable production environment to support business.
Policy Statement	<ol style="list-style-type: none"> 1. Directors/Managers to assume <i>responsibility for the risk</i> of the release proceeding during freeze periods. 2. Business stakeholder must also approve and assume risk <p>Examples:</p> <ul style="list-style-type: none"> • Business critical production fixes qualify • Compliance changes required on a specific date which can invoke this process. • Unable to meet release windows for a variety of reasons, could impact other releases/changes • CAB/RAB rejected, Director level endorsement approval can override <p>All situations will be dealt on a case-by-case situation contact Release Manager.</p>

3 Enterprise Release Management Process Roles

The following section provides an overview of the roles involved in the Enterprise Release Management process. They are categorised into the:

- Day-to-day operational management of the process
- End-to-end management oversight across the release lifecycle
- Governing functions and guidance provided by the Executive team

3.1 IT Enterprise Release Management Function

The Enterprise Release Management function begins at project conception or identified need for updated release to be deployed.

The function is complete once the release has been completed deployed, supported, reviewed and measured and reported with agreed results i.e. closed successful, failed, deferred or cancelled.

3.2 Release management process owner

The Enterprise Release Management Process Owner has sole responsibility for the release and deployment management process, and is accountable for ensuring that the process is fit for purpose.

Process owners are typically an executive or senior manager who possesses organisational authority. As an executive level process owner cannot be expected to manage the process, the day-to-day functions of the process owner role would be delegated.

The Release and Deployment Management Process Owner has the following accountabilities:

- sponsoring (and championing) the process across the organisation;
- managing the release and deployment management process;
- determining scope of the release and deployment management process;
- establishing release and deployment management processes;
- establishing links to other service management disciplines;
- organising reviews and audits of the release and deployment management process;
- and

- initiating release and deployment management process improvement programs.

3.3 Release and Deployment Manager

The Release and Deployment Manager is accountable for the successful utilisation of the release and deployment management (RDM) process. The Release and Deployment Manager is responsible for:

- communication and awareness of the RDM process across all stake holders;
- addressing concerns, comments or questions about the release process;
- management and monitoring of interfaces between release process and other ITSM processes;
- producing management reports on the progress and success of the release process;
- ensuring that project teams are using the release process for all necessary releases;
- addressing instances of non-usage of the release process;
- management of the release schedule;
- attending CAB meetings where necessary;
- assisting the process owner with the review and update of the process;
- coordinating with the change management process to combine similar changes into fewer release packages; and
- coordinating with the transition planning and support process for the scheduling of releases in the Forward Schedule of Change (FSC).
- Establish and chair the Release advisory Board (RAB) as required
- Establishing, chair and convene the Emergency Release advisory board (eRAB)
- Escalate to the governing board, ie Senior Executive team regarding any business impact urgent matters

3.4 Release coordinator

The Release and Deployment Manager is accountable for the successful utilisation of the release and deployment management process. The Release and Deployment Manager is responsible for:

- assisting the Release and Deployment Manager;
- confirming that submitted releases are valid, complete, and accurate;
- rejecting the inclusion into a release record of any change record that is part of a release and does not meet release and deployment requirements;
- providing input into decisions regarding technology requirements for the support to Release Management;

- managing everyday interactions with Service Towers including escalation management;
- ensuring the Release Management process for building, testing, and implementing a change is adhered to;
- providing information regarding the release when requested by the Release and Deployment Manager;
- escalating issues immediately to the Release Manager as and when required

3.5 Release and deployment team

Release Packaging and Build Manager is responsible for:

- obtaining existing and creating new CIs for release;
- coordinating the testing and packaging of the release;
- determining if the packages require rebuild prior to deployment;
- liaising with Service Validation and Testing throughout the build process.
- coordinating the approval of the deployment;
- communicating to business and technology teams;
- ensuring Early Life Support is available to support the new release;
- implementing back-out (if required);
- identifying and managing dependencies; and
- assisting with impact analysis.

3.6 Vendor/service partners

The Vendor/Service Partner is accountable for:

- Following the Release and Deployment Management Process and Procedures

3.7 Service Delivery Manager

The Service Manager is accountable for:

- Receiving escalations to work with the business service owners informing of issue resolution
- Understanding business impacts

3.8 Release Control Board

The Release Review Board is accountable for:

- Ensuring Release and Deployment activities fall within agreed process and procedures
- Reviews releases ensuring they are scheduled and deployed at the optimum timeframe with out business and customer impacts
- Reviewing upcoming releases, working towards ensuring business risk mitigated release and deployment activities
- Working towards bundling releases thereby reducing service outages
- Ensuring release and deployment activities are effective and efficient
- Provide advise and escalate business critical matters to Governing body
- Validate the integrity of release packages

3.9 Emergency Release Control Board

The Emergency Release review board (eRAB) is accountable for;

- Covering in emergency situations to deal with release and deployment issues
- Expediate release and deployment process
- Required Director and Governance engeagemen from the leadership as needed
- Dealt with on a case by case basis

3.10 RACI

RACI titles are used to provide a simple guide showing who performs activities within the process. The Process activities are mapped to roles and provide a level of detail ensuring each activity has owernship.

RACI Title	Details
R – Responsible	Role responsible for completing the task
A – Accountable	Only one role can be accountable for each activity
C – Consult	The role who are consulted and whose opinions are sought
I – Inform	The role who are kept up-to-date on progress

Activity	Role										
	Release Process Owner	Release Manager	Executive Leadership team	PMO	Release and Deployment Team	Change Manager	Service Transition, SDM	Service Operations	Service Desk	Stakeholders/Business Owners	End Users
Release Management Process, Procedure – planning, design, compliance, improvement, training, communications, CSI.	A	R				I					
Approvals	A	R				I					
REL01 - Define/Review Release Process & Procedure	A					I					
REL002 – Release Risk Calculator	A					I					
Emergency release?	A		R			I	I				
Minor release?	A		R			I	I				
Moderate or Major?	A		R			I	I				
REL003 – Emergency Release	A		R								

Release Management Process, Procedure – planning, design, compliance, improvement, training, communications, CSI.	A	R				I					
REL003.1 – Raise Release registration	A		R								
REL003.2 – Escalate Release Manager	A		R								
REL003.3 – Convene eRAB	A		C/I								
Activity \ Role	Release Process Owner	Release Manager	Executive Leadership team	PMO	Release and Deployment Team	Change Manager	Service Transition, SDM	Service Operations	Service Desk	Stakeholders/Business Owners	End Users
Approved?	A		C/I								
REL003.4 - Communications	I	I	A/R		C/I	C/I	C/I	C/I	C/I	C / I	
REL003.5 – Build, Test & Deploy	A		R		C/I	C/I	C/I	C/I	I	I	

Approved?	A		C/I								
REL003.6 – Heightened ELS	A		R				C/I				
REL004 – Gate 1 entry, Release Planning	A	R			C/I						
REL005 – Release Scheduling	A	R			C/I						
REL006 – Gate 2 entry, Release Build	A	I	R		C/I						
REL007 – Release Package testing	A	I	R		C/I						
REL008 – UAT Test Coordination	A	I	R		C/I						
REL009 – Release testing & Defect Management	A	I	R		C/I						
REL010 – UAT train, test, Defect Mgmt	A	I	R		C/I						
REL011 – Final roll out planning	A	R	I		C/I						
Activity	Release Process Owner	Release Manager	Executive Leadership team	PMO	Release and Deployment Team	Change Manager	Service Transition, SDM	Service Operations	Service Desk	Stakeholders/Business Owners	End Users
Role											

REL012 – Defect Management Review	A	R	I		C/I						
REL013 – Update Release schedule	A	R	I		C/I						
REL014 – Gate 3 entry, Release Deployment	A	R	I		C/I						
REL015 – Gate 4 entry, Early Life Support	A	I	R		C/I	C/I	C/I	C/I	I	C / I	
REL016 – Defect Management	A	R	R		C/I					C / I	
REL017 – Lessons Learnt	A	I	R		I						
REL018 – Gate 5 entry – Conduct PIR	A	R	I		C/I	I	R	I	I	C	
Review to close?	A	R	I		I			C/I			
End	A	R									
Knowledge Management											
Problem Management											

Activity	Role										
	Release Process Owner	Release Manager	Executive Leadership team	PMO	Release and Deployment Team	Change Manager	Service Transition, SDM	Service Operations	Service Desk	Stakeholders/Business Owners	End Users
REL019 - Reporting	A			I							
REL020 – Management	A	R		R							
REL021 - Governance	R	R		A							

4 Glossary

Term	Definition
DOE	The New South Wales Department of Education and Communities
ITD	NSW DOE Information Technology Directorate
RCB	Release Control Board
Release Record	A Release Record contains all details of a Release, documenting the history of the Release from the planning stages to closure
RDM	Release & Deployment Management
SDM	Service Delivery Manager
ITIL	Information Technology Infrastructure Library
ITM	Information Technology Manager
PPS (PMO)	DoE Project Management Office
SM	ITD Senior Manager
Release Process	Release management is the process of managing, planning, scheduling and controlling a build through different stages and environments; including testing and deploying.
Emergency Release Process	Emergency Release management is the process to fast track critical/compliance releases to production
Release Window	An agreed pre-organised time when Releases may be implemented with minimal impact on Services.
Release Control Board	a committee that consists of Subject Matter Experts (SME) including project managers, release managers etc, who will review release governance