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# CASHTRACK

## CHANGE MANAGEMENT PLAN

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*Version 1.3*

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## VERSION HISTORY

Version #	Implemented By	Revision Date	Approved By	Approval Date	Reason
1.0	Alex Leong, Ravishankar Amrita, Anusha, Daniel Loe, Elliott Ong, S Sri Kalki, Kumar Mehul	14th March 2021	Nicklaus	15th March 2021	Initial Change Management Plan draft
1.1	Elliot Ong	18th March 2021	S Sri Kalki	19th March 2021	Revision to Appendixes C, D, E
1.2	S Sri Kalki	21st March 2021	Nicklaus	22nd March 2021	Revision in Responsibilities
1.3	Alex Leong, Ravishankar Amrita, Anusha, Daniel Loe, Elliott Ong, S Sri Kalki, Kumar Mehul	24th March 2021	Nicklaus	24th March 2021	Final changes & revision for all sections

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# 1 INTRODUCTION

## 1.1 PURPOSE OF THE CHANGE MANAGEMENT PLAN

The CashTrack Change Management Plan documents and tracks all the necessary information required to effectively manage project change from project inception to delivery.

The CashTrack Change Management Plan is created during the Planning Phase of the project. The intended audience for this document is the project manager, project team, project sponsor and any senior leaders whose support is needed to carry out the plan.

# 2 CHANGE MANAGEMENT PROCESS

The Change Management process establishes an orderly and effective procedure for tracking the submission, coordination, review, evaluation, categorization, and approval for release of all changes to the project's baselines.

## 2.1 CHANGE REQUEST PROCESS FLOW REQUIREMENTS

The process flow requirements for a Change Request (CR) are listed as follows:

Step	Description
<b>Generate CR</b>	Any stakeholder, external to the development team, who requests for changes to be made completes a CR Form detailing key information of the desired change and sends the completed form to the Change Manager.
<b>Review CR</b>	The Change Manager reviews and decides whether the CR received should be rejected/returned to the submitter or accepted. Considerations for this decision includes the completeness and correctness of the CR and adequacy of details provided.
<b>Log CR Status</b>	Once the CR is reviewed and accepted, the Change Manager enters the CR into the CR Log. The CR's status is updated throughout the CR process as needed.
<b>Evaluate CR</b>	Depending on the size and impact of change, either the Project Level Change Control Board (for small changes) or the Software Change Control Board (for major/urgent changes) re-evaluates the CR based on feasibility, cost and urgency of change and decides to either approve or reject the CR  If approved, the Change Control Board personnel will provide an estimated level of effort to process the change, and develop a proposed solution together with the plan of action for the suggested change
<b>Authorize</b>	Approval to move forward with incorporating the suggested change into the project/product
<b>Implement CR</b>	If approved, the Project Manager will designate a subset of developers to make the necessary adjustments pertaining to the requested change and communicate CR status to the submitter and other stakeholders

To better visualise the process flow for a change request, refer to the flow chart given in Figure 1.0 below:

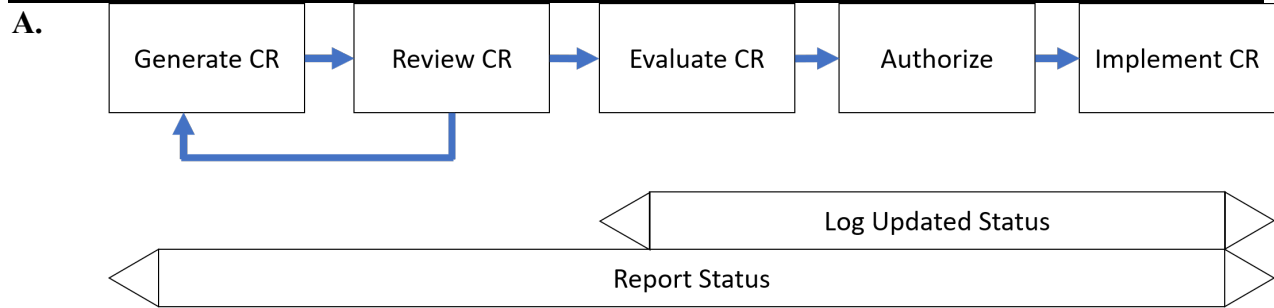


Figure 1.0

## 2.2 CHANGE REQUEST FORM AND CHANGE MANAGEMENT LOG

The following details of the Change Request Form must be completed, updated in the Change Management Log, and approved by the Project Manager prior to implementing any changes in the project.

The actual Change Request Form Template, reflecting all mentioned details, may be found in Appendix D.

Element	Description
Creation Date	The date the CR was created
CR#	Change request number (assigned by the Change Manager)
Title	A brief description of the change request
Change Type	The type of component the change will affect (i.e. Hardware, Software, Database, Security, Network)
Description	Description of the desired change, the impact, or benefits of a change should also be described
Submitter	Name of the person completing the CR Form and who can answer questions regarding the suggested change
Submitter Role	The role of the submitter in the project
Phone	Phone number of the submitter
Email	Email of the submitter
Product	The product that the suggested change is for
Version	The product version that the suggested change is for
Priority	A code that provides a recommended categorization of the urgency of the requested change (High, Medium, Low)
CR Status	The status of approval of the change (In review, Approved, Rejected), approval is done by Project Manager
Approval Date	The date the CR was approved
Approved By	Name of person who approved the CR
Approval Sign-off	Signature of the person who approved the CR

## 2.3 EVALUATING AND AUTHORIZING CHANGE REQUESTS

Change requests are evaluated using the following priority criteria:

Priority	Description
Critical	Critical priority CRs are immediately necessary to ensure that the project achieves its intended objectives. These CRs include fixes/changes that address the identified problem components which acted as a barrier for further development of the system where no further progress could be made.

High	High priority CRs are key in ensuring the timely completion of development of the system. A high priority CR is a necessary change required to fix a potentially damaged service/component that can affect a significant portion of the system
Medium	Medium priority CRs are classified as changes that might solve small recurring problems/issues, repair some missing functionality or optimize some work processes. Since these CRs are less critical than Critical and High priority CRs and can thus be scheduled
Low	Low priority CRs are classified as quality of life changes that do not directly impact the development of the system. These CRs can also be scheduled

Change requests are evaluated and assigned one or more of the following change types:

Type	Description
Scope	Change affecting scope
Time	Change affecting time
Duration	Change affecting duration
Cost	Change affecting cost
Resources	Change affecting resources
Deliverables	Change affecting deliverables
Product	Change affecting product
Processes	Change affecting process
Quality	Change affecting quality of the product

Change requests are evaluated and assigned one of the following status types:

Status	Description
Open	CR entered/open but not yet approved or assigned
Work in Progress	CR approved, assigned, and work is progressing
In Review	CR work is completed and in final review prior to testing
Testing	CR work has been reviewed and is being tested
Closed	CR work is complete, has passed all tests, and updates have been released.
Approved	CR that has been reviewed and approved
Rejected	CR that was not approved

### 2.3.1 Change Control Board

A Change Control Board (CCB) is a formally constituted group of stakeholders responsible for approving or rejecting changes to the project baselines. The members of the CashTrack CCB and their corresponding responsibilities are as follows:

Role	Name	Contact	Description
Project Manager	Nicklaus Tan	9281 8291	Approves CRs
Release Engineer & Acting Change Manager	Alex Leong	9127 7451	Manages incoming CRs
Lead Developer	Kumar Mehul	9082 8198	Assigns CRs that are on the development side
QA Manager	S Sri Kalki	9019 8298	Assigns CRs that involves bug fixes and the quality of the product

4.

### 3 RESPONSIBILITIES

Role	Name	Contact (Email/Phone)	Description
Project Manager	Nicklaus Tan	Email: <a href="mailto:nick123@e.ntu.edu.sg">nick123@e.ntu.edu.sg</a> Phone: 9281 8291	In charge of the overall process and ensures CRs are attended to appropriately and in accordance to their priority.
Release Engineer & Acting Change Manager	Alex Leong	Email: <a href="mailto:aleong123@e.ntu.edu.sg">aleong123@e.ntu.edu.sg</a> Phone: 9127 7451	Enters CRs into the log and spearheads the feasibility study for a change request.
QA Manager	S Sri Kalki	Email: <a href="mailto:srikalki123@e.ntu.edu.sg">srikalki123@e.ntu.edu.sg</a> Phone: 9019 8298	Assesses a CR from a quality assurance point of view.
Lead Developer	Kumar Mehul	Email: <a href="mailto:mehul123@e.ntu.edu.sg">mehul123@e.ntu.edu.sg</a> Phone: 9082 8198	Assesses the CR from a technical point of view.
Change Feasibility Group	Runtime Terror Team	Email : <a href="mailto:runtimeerrorFG@gmail.com">runtimeerrorFG@gmail.com</a> Instagram: runtimeerrorFG Twitter: @runtimeerrorFG	Investigates the feasibility of a proposed change by considering cost, and benefits of the change.
Change Implementation Group	Runtime Terror Team	Email : <a href="mailto:runtimeerrorIG@gmail.com">runtimeerrorIG@gmail.com</a> Instagram: runtimeerrorIG Twitter: @runtimeerrorIG	Implements and tests CRs which have been approved by the project manager.

## 5. APPENDIX A: CHANGE MANAGEMENT PLAN APPROVAL

The undersigned acknowledge they have reviewed the CashTrack **Change Management Plan** and agree with the approach it presents. Changes to this **Change Management Plan** will be coordinated with and approved by the undersigned or their designated representatives.

Signature:  Date: 25/03/2021

Print Name: Nicklaus Tan

Title: Project Manager

Role: Oversees and ensures compliance with the Change Management Plan

Signature:  Date: 25/03/2021

Print Name: Kumar Mehul

Title: Lead Developer

Role: Analyze the CR's feasibility/impact from a technical point of view

Signature:  Date: 25/03/2021

Print Name: S Sri Kalki

Title: QA Manager

Role: Analyze the CR's feasibility/impact from a quality assurance point of view

Signature:  Date: 25/03/2021

Print Name: Alex Leong

Title: Release Engineer / Acting Change Manager

Role: Spearheads the feasibility study of CRs and logs them into the Change Log



## 6. APPENDIX B: REFERENCES

The following table summarizes the documents referenced in this document.

<b>Document Name and Version</b>	<b>Description</b>	<b>Location</b>
<i>Software Configuration Management Plan (Version 1.0)</i>	<i>Systemically manages, controls and outlines the standard for changes in documents, codes and other components involved in the Software Development Life Cycle</i>	<i>CashTrack Media Wiki Page</i>

## 7. APPENDIX C: KEY TERMS

The following table provides definitions for terms relevant to this document.


Term	Definition
Stakeholder	Groups or individuals that are either directly involved in, affects or be affected by the development of the system
Procedure	A series of steps conducted in a planned and orderly manner
Priority	The importance of ordering in which the accepted changes are scheduled to be handled
Change Request	A change request is a document containing a call for an adjustment of a system
Baseline	An agreed description and definition of attributes of the product that has been formally reviewed and approved by responsible management, that thereafter serves as the basis for further development

## 8. APPENDIX D: CHANGE REQUEST FORM EXAMPLE

The Change Request Form Template attached below can be used to submit changes during the life of the project.

Change Request Form Template			
Product	<i>Product Name</i>	Version	<i>Product Version</i>
Submitter	<i>Name</i>	Creation Date	<i>Date &amp; Time</i>
Submitter Role	<i>Involvement with project</i>	Title	<i>Brief description of the Change request</i>
Phone	<i>Phone Number</i>	Email	<i>Email Address</i>
CR#	<i>(To be filled by Change Manager)</i>	Change Type	<i>Component Type</i>
Description	<i>Description of the desired change</i>		
Priority	<i>CR Priority</i>		
CR Status	In review	Approved	Rejected
Approval Date	<i>(To be filled by approving authority)</i>		
Approved By	<i>(To be filled by approving authority)</i>	Approval Sign-off	<i>(To be filled by approving authority)</i>

An example of a Change Request Form, utilising the template above:

Change Request Form			
Product	CashTrack	Version	Version 1.0.1
Submitter	Daniel Loe	Creation Date	18th March 2021
Submitter Role	Quality Assurance Engineer	Title	Add security features to the application
Phone	8182 3913	Email	DLOE001@e.ntu.edu.sg
CR#	1	Change Type	Software
Description	Due to the constant back and forth transferring of funds between parties, reliability and security should be the top priority. As such, a two-factor authentication feature is being proposed to be added to the system by means of writing additional lines of software code.		
Priority	High		
CR Status	In review	Approved	Rejected
		✓	
Approval Date	20th March 2021		
Approved By	Nicklaus	Approval Sign-off	

## 9. APPENDIX E: CHANGE MANAGEMENT LOG TEMPLATE

The detailed Change Management Log template attached below can be used to track and manage requested changes during the life of the project.

Change Request ID	Status	Submitted Date	Submitter Name	Title	Description	Priority	Schedule Impact (days)	Comments

An example record of a Change Management Log, utilising the template above:

Change Request ID	Status	Submitted Date	Submitter Name	Title	Description	Priority	Schedule Impact (days)	Comments
1	Approved	18th March 2021	Alex	Fix security loophole	Found security flaw, plan to add encryption through use of Hashify API	Critical	5 Working Days	Change is of utmost importance to implement immediately