 Eskom	Group IT Functional Specification GenTLC K2 Blackpearl Upgrade	Group IT
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Title : Group IT Functional Specification <GenTLC K2 Blackpearl Upgrade> <E-FORM NR XXXXXX>	Unique Identifier	240-87435102
	Document Type	TE
	Area of Applicability	C3001
	Revision No.	8
	Revision Date	December 2017
	Effective Date	December 2014
	Total Pages	9

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Document Control Information

Effective from	Amendment	Version Number	Modified By
20 February 2018	Creation	1.0	Ubir Kalichuran

Approval

This document was reviewed and approved in terms of accuracy and completeness by the following stakeholders:

Divisional / Business Representatives	Date	Sections to Review	Signature

Glossary of Terms

Abbreviations

Abbreviation	Description
GenTLC	Generation Technical Life Cycle
SE	System Engineer
LM	Line Manager
TPC	Technical Plan Coordinator
Station LM	Station Line Manager
LOPP	Life of Plant Plan
DLL	Dynamic Link Library

Definitions

Abbreviation	Description
System	It can be application, or middleware

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1 Introduction

The Win 2003 servers of which the GENTLC workflow processes and databases reside, crashed last year and were down for a period of 3 or more weeks. During this period, the GENTLC system was inoperable in the sense, where all their required projects could not be sent for approval, thus resulting in an incorrect Life of Plant Plan.

2 Business Requirements

The business requires that development and maintenance on the system be carried out, in order to upgrade and migrate the GENTLC workflow to that of K2 Blackpearl, which is currently the Eskom standard.

1. Purpose

Upgrade the GENTLC system to use the K2 Blackpearl environment, for workflow, so that it completely eliminates the risk of the workflow breaking, in the event that the Win 2003 servers crash again.

2. Input

- GENTLC system development
- K2 Blackpearl workflow process development of the existing workflow processes

3. Process

Software development should be done by the GENTLC developer as well as the K2 developers, so that the workflow for GENTLC will be done on K2 Blackpearl

4. Output

Successful integration between GENTLC Application and K2 Blackpearl Workflow, resulting in the GENTLC application, no longer being reliant on the old Win 2003 servers and more importantly, a more stable workflow solution for users, that is now running on the latest approved Eskom workflow technology.

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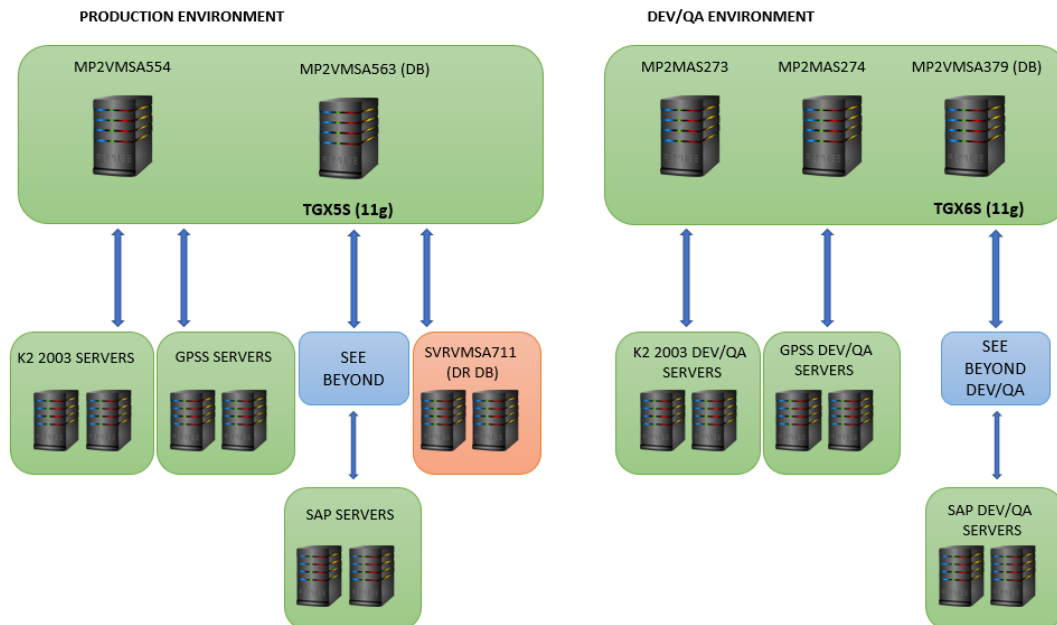
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3 High-Level Design

3.1 System Architecture

OLD ARCHITECTURE:



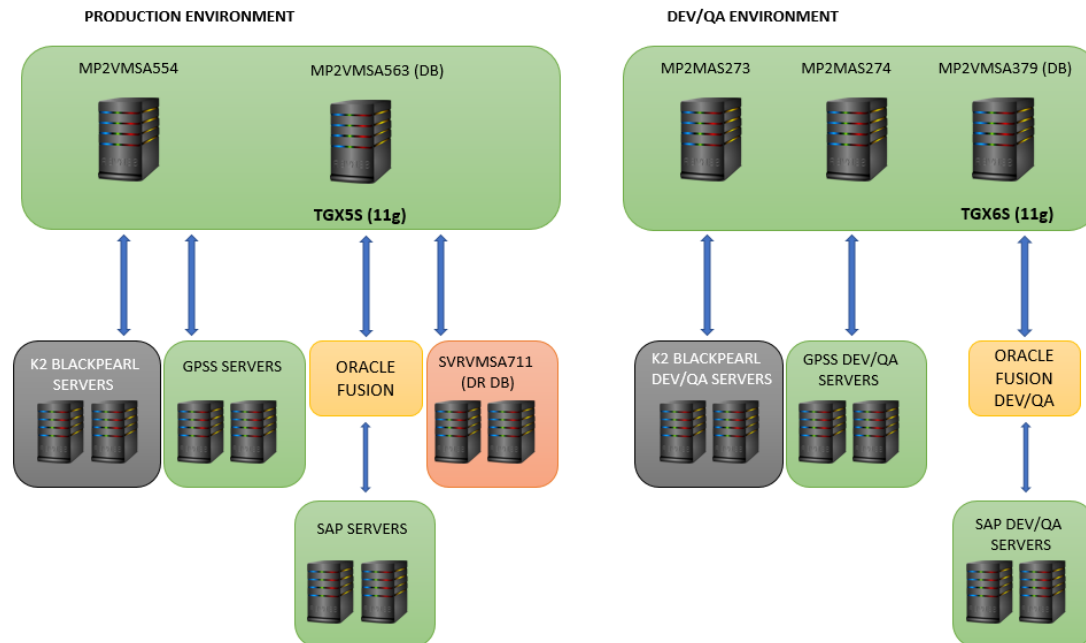
- All K2 Win 2003 servers (PROD/QA/DEV) will now fall away and be replaced by the new K2 Blackpearl servers.
- The GENTLC application will then reference the K2 Blackpearl workflow process, that resides on these new servers.

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NEW ARCHITECTURE:



4 Functional Requirements

Make the necessary GENTLC changes to interact with the new Blackpearl workflow process and develop the new Blackpearl workflow process

4.1 List of functions

4.1.1 GenTLC

1. Remove the old K2 DLLS and add the new Blackpearl DLLs.
2. Make all necessary code changes for errors that might have arisen from the addition of the new Blackpearl DLLs.
3. Integrate with the new Blackpearl workflow processes upon their completion.

4.1.2 K2 Blackpearl

1. Replicate in the new process, all the workflow functions that were performed by the SE, in the old Win 2003.net workflow processes
2. Replicate in the new process, all the workflow functions that were performed by the LM, in the old Win 2003.net workflow processes
3. Replicate in the new process, all the workflow functions that were performed by the TPC, in the old Win 2003.net workflow processes

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4.2 Use Cases

Scenario 1	Step	Action/Result	GenTLC	K2 Blackpearl
SE sends a project for approval and then retracts it	1	Action1	<ul style="list-style-type: none"> SE sends the project to the LM for approval 	
	2	Result1	<ul style="list-style-type: none"> The project is sent to the LM for approval An email notification is sent to the SE & LM 	<ul style="list-style-type: none"> New process instance started and it is sent to the LM
	3	Action2	<ul style="list-style-type: none"> The SE retracts the project 	
	4	Result2	<ul style="list-style-type: none"> The project is sent to the SE for editing An email notification is sent to the SE & LM 	<ul style="list-style-type: none"> The process instance is closed and has ended
Scenario 2	Step	Action/Result	GenTLC	K2 Blackpearl
SE sends a project for approval and the LM rejects the project	1	Action1	<ul style="list-style-type: none"> SE sends the project to the LM for approval 	
	2	Result1	<ul style="list-style-type: none"> The project is sent to the LM for approval An email notification is sent to the SE & LM 	<ul style="list-style-type: none"> New process instance started and it is sent to the LM
	3	Action2	<ul style="list-style-type: none"> The LM rejects the project 	
	4	Result2	<ul style="list-style-type: none"> The project is now with the SE for editing An email notification is sent to the SE 	<ul style="list-style-type: none"> The process instance is closed and has ended
Scenario 3	Step	Action/Result	GenTLC	K2 Blackpearl
SE sends a project for approval and the LM approves the project, but it is rejected by the TPC	1	Action1	<ul style="list-style-type: none"> SE sends the project to the LM for approval 	
	2	Result1	<ul style="list-style-type: none"> The project is sent to the LM for approval An email notification is sent to the SE & LM 	<ul style="list-style-type: none"> New process instance started and it is sent to the LM
	3	Action2	<ul style="list-style-type: none"> The LM approves the project 	
	4	Result2	<ul style="list-style-type: none"> The project is sent to the TPC for approval An email notification is sent to the SE & TPC 	<ul style="list-style-type: none"> The process instance is sent through to the TPC
	5	Action3	<ul style="list-style-type: none"> The TPC rejects the project 	
	6	Result3	<ul style="list-style-type: none"> The project is sent to the SE for editing An email notification is sent to the SE 	<ul style="list-style-type: none"> The process instance is closed and has ended

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Scenario 4	Step	Action/Result	GenTLC	K2 Blackpearl
SE sends a project for approval and the LM approves the project and it is approved by the TPC	1	Action1	<ul style="list-style-type: none"> SE sends the project to the LM for approval 	
	2	Result1	<ul style="list-style-type: none"> The project is sent to the LM for approval An email notification is sent to the SE & LM 	<ul style="list-style-type: none"> New process instance started and it is sent to the LM
	3	Action2	<ul style="list-style-type: none"> The LM approves the project 	
	4	Result2	<ul style="list-style-type: none"> The project is sent to the TPC for approval An email notification is sent to the SE & TPC 	<ul style="list-style-type: none"> The process instance is sent through to the TPC
	5	Action3	<ul style="list-style-type: none"> The TPC approves the project 	
	6	Result3	<ul style="list-style-type: none"> The project is approved and will appear on the LOPP An email notification is sent to the SE 	<ul style="list-style-type: none"> The process instance is closed and has ended
Scenario 5	Step	Action/Result	GenTLC	K2 Blackpearl
TPC sends a project for approval and then retracts it	1	Action1	<ul style="list-style-type: none"> TPC sends the project to the Station LM for approval 	
	2	Result1	<ul style="list-style-type: none"> The project is sent to the Station LM for approval An email notification is sent to the TPC & Station LM 	<ul style="list-style-type: none"> New process instance started and it is sent to the LM
	3	Action2	<ul style="list-style-type: none"> The TPC retracts the project 	
	4	Result2	<ul style="list-style-type: none"> The project is sent to the TPC for editing An email notification is sent to the TPC & Station LM 	<ul style="list-style-type: none"> The process instance is closed has ended
Scenario 6	Step	Action/Result	GenTLC	K2 Blackpearl
TPC sends a project for approval and the Station LM rejects the project	1	Action1	<ul style="list-style-type: none"> TPC sends the project to the Station LM for approval 	
	2	Result1	<ul style="list-style-type: none"> The project is sent to the Station LM for approval An email notification is sent to the TPC & Station LM 	<ul style="list-style-type: none"> New process instance started and it is sent to the LM
	3	Action2	<ul style="list-style-type: none"> The Station LM rejects the project 	
	4	Result2	<ul style="list-style-type: none"> The project is sent to the TPC for editing An email notification is sent to the TPC 	<ul style="list-style-type: none"> The process instance is closed has ended
Scenario 7	Step	Action/Result	GenTLC	K2 Blackpearl
TPC sends a project for approval and the Station LM approves the project	1	Action1	<ul style="list-style-type: none"> TPC sends the project to the Station LM for approval 	
	2	Result1	<ul style="list-style-type: none"> The project is sent to the Station LM for approval An email notification is sent to the TPC & Station LM 	<ul style="list-style-type: none"> New process instance started and it is sent to the LM
	3	Action2	<ul style="list-style-type: none"> The Station LM approves the project 	
	4	Result2	<ul style="list-style-type: none"> The project is approved and will appear on the LOPP An email notification is sent to the TPC 	<ul style="list-style-type: none"> The process instance is closed has ended

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5 Non-Functional Requirements

5.1 Transaction Volume

5.2 Performance Requirements

N/A

5.3 Security Requirements

5.4 Software Quality Attributes

N/A

5.5 History Requirements

N/A

5.6 Archiving Requirements

No Archiving required.

5.7 Frequency

N/A

5.8 Dependencies

N/A

5.9 Access Rights (Roles and Profiles)

No.	Role	K2 Blackpearl Privileges
1	SE	Create
2	LM	Approve/Reject
3	TPC	Create/Approve/Reject

6 Other Requirements

N/A

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7 Functional Design Considerations

8 Interface Requirements

8.1 Interface Data Structure

Interface ID: < >
Source System: < GenTLC >
Target System: <K2 Blackpearl>
Integration Mechanism: < DLLs>
Interface Name: < GENTLC\ProjectApproval>
Interface Description: < Data fields are passed through to K2 at different stages of the workflow process. The data fields tells K2 what is needed at the initiated action >
Data Format: <Populate process instance variables that reside in the DLL >
Direction: <Outbound>

8.1.1 Interface Data Schema

Name	Data Type	Value
CreatorDest	String	
CreatorEmail	String	
LineManDest	String	
LineManEmail	String	
LMApproval	String	
MailFrom	String	GENTLC
ProcessType	String	
ProcessTypeDesc	String	
ProjectCode	String	
ProjectID	Long	0
ProjectTitle	String	
TPCApproval	String	
TPCDest	String	
TPCEmail	String	
TPCInitiated	Boolean	FALSE

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Interface Email settings for different actions

Scenario 1	GenTLC	
SE sends a project for approval and then retracts it	Original email sent to SE & LM	<p>Email sent to SE</p> <ul style="list-style-type: none"> • SmtServer = K2.StringTable("GENTLC_SMTP") • strFrom = K2.ProcessInstance.DataFields("MailFrom").Value • strEmail = K2.ProcessInstance.DataFields("CreatorEmail").Value • Validation: <code>If IsNothing(strEmail) OrElse strEmail.Trim().Length = 0 Then Throw New System.Exception("No Email Address was supplied, please rectify and try again.") End If</code> • strSubject = "Workflow request for project : " & K2.ProcessInstance.DataFields("ProjectCode").Value • strBody = "Project Title : " & K2.ProcessInstance.DataFields("ProjectTitle").Value & "" & System.Environment.NewLine & "" & System.Environment.NewLine & "Dear Sir\Madam" & System.Environment.NewLine & "" & System.Environment.NewLine & "Your workflow has been sent to the following personnel:" & System.Environment.NewLine & "Line Manager : " & K2.ProcessInstance.DataFields("LineManDest").Value & "" & System.Environment.NewLine & "TPC : " & K2.ProcessInstance.DataFields("TPCDest").Value & "" & System.Environment.NewLine & "" & System.Environment.NewLine & "Yours sincerely," & System.Environment.NewLine & "" & System.Environment.NewLine & "The GENTLC Team." • Must Contain a link to the GenTLC website <p>Email sent to LM</p> <ul style="list-style-type: none"> • objSender.SmtServer = K2.StringTable("GENTLC_SMTP") • strFrom = K2.ProcessInstance.DataFields("MailFrom").Value • strEmail = K2.ProcessInstance.DataFields("LineManEmail").Value • Validation: <code>If IsNothing(strEmail) OrElse strEmail.Trim().Length = 0 Then Throw New System.Exception("No Email Address was supplied, please rectify and try again.") End If</code> • strSubject = "Workflow approval request for project : " & K2.ProcessInstance.DataFields("ProjectCode").Value • strBody = "Project Title : " & K2.ProcessInstance.DataFields("ProjectTitle").Value & "" & System.Environment.NewLine & "" & System.Environment.NewLine & "Dear Sir/Madam" & System.Environment.NewLine & "" & System.Environment.NewLine & "You have a new workflow item in Gen.TLC from the following:" & System.Environment.NewLine & "Originator: " & K2.ProcessInstance.DataFields("CreatorDest").Value & System.Environment.NewLine & "" & System.Environment.NewLine & "Yours Sincerely" & System.Environment.NewLine & "" & System.Environment.NewLine & "The Gen.TLC Team."

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		<ul style="list-style-type: none"> • Must Contain a link to the GenTLC website
	Retraction email sent to SE & LM	<p>Email sent to SE & LM</p> <ul style="list-style-type: none"> • SmtServer = K2.StringTable("GENTLC_SMTP") • strFrom = K2.ProcessInstance.DataFields("MailFrom").Value • strEmail = K2.ProcessInstance.DataFields("CreatorEmail").Value • Validation: <code>If IsNothing(strEmail) OrElse strEmail.Trim().Length = 0 Then Throw New System.Exception("No Email Address was supplied, please rectify and try again.") End If</code> • strSubject= K2.ProcessInstance.DataFields("ProcessTypeDesc").Value & " approval for project code : " & K2.ProcessInstance.DataFields("ProjectCode").Value • strBody = "Project Title : " & K2.ProcessInstance.DataFields("ProjectTitle").Value & "" & System.Environment.NewLine & "Workflow request was retracted as requested." & System.Environment.NewLine & "" & System.Environment.NewLine & "Yours Sincerely" & System.Environment.NewLine & "" & System.Environment.NewLine & "The Gen.TLC Team." • Must Contain a link to the GenTLC website

Scenario 2	GenTLC	
SE sends a project for approval and the LM rejects the project	Original email sent to SE & LM	Addressed Above
	LM Rejection email sent to SE	<p>Email sent to SE</p> <ul style="list-style-type: none"> • SmtServer = K2.StringTable("GENTLC_SMTP") • strFrom = K2.ProcessInstance.DataFields("MailFrom").Value • strEmail = K2.ProcessInstance.DataFields("CreatorEmail").Value • Validation: <code>If IsNothing(strEmail) OrElse strEmail.Trim().Length = 0 Then Throw New System.Exception("No Email Address was supplied, please rectify and try again.") End If</code> • strSubject = K2.ProcessInstance.DataFields("ProcessTypeDesc").Value & " approval for project code : " & K2.ProcessInstance.DataFields("ProjectCode").Value • strBody = "Project Title : " & K2.ProcessInstance.DataFields("ProjectTitle").Value & "" & System.Environment.NewLine & "" & System.Environment.NewLine & "The project " & K2.ProcessInstance.DataFields("ProjectCode").Value & " was declined by your Line Manager. " & System.Environment.NewLine & "" & System.Environment.NewLine & "Please contact the relevant person for more detail." & System.Environment.NewLine & "Yours Sincerely" & System.Environment.NewLine & "" & System.Environment.NewLine & "The Gen.TLC Team." • Must Contain a link to the GenTLC website

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Scenario 3	GenTLC	
SE sends a project for approval and the LM approves the project, but it is rejected by the TPC	Original email sent to SE & LM	Addressed Above
	LM Approval email sent to SE & TPC	Email sent to SE <ul style="list-style-type: none"> • SmtplibServer = K2.StringTable("GENTLC SMTP") • strFrom = K2.ProcessInstance.DataFields("MailFrom").Value • strEmail = K2.ProcessInstance.DataFields("CreatorEmail").Value • Validation: If IsNothing(strEmail) OrElse strEmail.Trim().Length = 0 Then Throw New System.Exception("No Email Address was supplied, please rectify and try again.") End If • strSubject = K2.ProcessInstance.DataFields("ProcessTypeDesc").Value & " approval for project code : " & K2.ProcessInstance.DataFields("ProjectCode").Value • strBody = "Project Title : " & K2.ProcessInstance.DataFields("ProjectTitle").Value & "" & System.Environment.NewLine & "" & System.Environment.NewLine & "The project " & K2.ProcessInstance.DataFields("ProjectCode").Value & " was approved by your Line Manager." & System.Environment.NewLine & "Yours Sincerely" & System.Environment.NewLine & "" & System.Environment.NewLine & "The Gen.TLC Team." • Must Contain a link to the GenTLC website Email sent to TPC <ul style="list-style-type: none"> • SmtplibServer = K2.StringTable("GENTLC SMTP") • strFrom = K2.ProcessInstance.DataFields("MailFrom").Value • strEmail = K2.ProcessInstance.DataFields("TPCEmail").Value • Validation: If IsNothing(strEmail) OrElse strEmail.Trim().Length = 0 Then Throw New System.Exception("No Email Address was supplied, please rectify and try again.") End If • strSubject = "Workflow approval request for project : " & K2.ProcessInstance.DataFields("ProjectCode").Value • strBody = "Project Title : " & K2.ProcessInstance.DataFields("ProjectTitle").Value & "" & System.Environment.NewLine & "" & System.Environment.NewLine & "Dear Sir/Madam" & System.Environment.NewLine & "" & System.Environment.NewLine & "You have a new workflow item in Gen.TLC from the following:" & System.Environment.NewLine & "Originator: " & K2.ProcessInstance.DataFields("CreatorDest").Value & System.Environment.NewLine & "" & System.Environment.NewLine & "Yours Sincerely" & System.Environment.NewLine & "" & System.Environment.NewLine & "The Gen.TLC Team." • Must Contain a link to the GenTLC website
	TPC Rejection email	Email sent SE & LM

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	sent to SE & LM	<ul style="list-style-type: none"> objSender.SmtpServer = K2.StringTable("GENTLC_SMTP") strFrom = K2.ProcessInstance.DataFields("MailFrom").Value strEmail = K2.ProcessInstance.DataFields("CreatorEmail").Value & ";" & K2.ProcessInstance.DataFields("LineManEmail").Value Validation: If IsNothing(strEmail) OrElse strEmail.Trim().Length = 0 Then Throw New System.Exception("No Email Address was supplied, please rectify and try again.") End If strSubject = K2.ProcessInstance.DataFields("ProcessTypeDesc").Value & " approval for project code : " & K2.ProcessInstance.DataFields("ProjectCode").Value strBody = "Project Title " & K2.ProcessInstance.DataFields("ProjectTitle").Value & System.Environment.NewLine & "The project " & K2.ProcessInstance.DataFields("ProjectCode").Value & " was declined by your TPC. " & System.Environment.NewLine & "" & System.Environment.NewLine & "Please contact the relevant person for more detail." & System.Environment.NewLine & "Yours Sincerely" & System.Environment.NewLine & "" & System.Environment.NewLine & "The Gen.TLC Team." Must Contain a link to the GenTLC website
Scenario 4	GenTLC	
SE sends a project for approval and the LM approves the project and it is approved by the TPC	Original email sent to SE & LM	Addressed Above
	LM Approval email sent to SE & TPC	Addressed Above
	TPC Approval email sent to SE & LM	Email sent to SE and LM <ul style="list-style-type: none"> objSender.SmtpServer = K2.StringTable("GENTLC_SMTP") strFrom = K2.ProcessInstance.DataFields("MailFrom").Value If K2.ProcessInstance.DataFields("CreatorEmail").Value <> K2.ProcessInstance.DataFields("TPCEmail").Value Then strEmail = K2.ProcessInstance.DataFields("CreatorEmail").Value & ";" & K2.ProcessInstance.DataFields("LineManEmail").Value Validation If IsNothing(strEmail) OrElse strEmail.Trim().Length = 0 Then Throw New System.Exception("No Email Address was supplied, please rectify and try again.") End If strSubject = K2.ProcessInstance.DataFields("ProcessTypeDesc").Value & " approval for project code : " & K2.ProcessInstance.DataFields("ProjectCode").Value strBody = "Project Title : " & K2.ProcessInstance.DataFields("ProjectTitle").Value & System.Environment.NewLine & "The project " & K2.ProcessInstance.DataFields("ProjectCode").Value & " was approved by the TPC." & System.Environment.NewLine & "Yours Sincerely" & System.Environment.NewLine & "" & System.Environment.NewLine & "The Gen.TLC Team." Must Contain a link to the GenTLC website

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Scenario 5	GenTLC	
TPC sends a project for approval and then retracts it	Original email sent to TPC & LM	<p>Email sent to TPC</p> <ul style="list-style-type: none"> • SmtpServer = K2.StringTable("GENTLC_SMTP") • strFrom = K2.ProcessInstance.DataFields("MailFrom").Value • strEmail = K2.ProcessInstance.DataFields("CreatorEmail").Value • Validation: <code>If IsNothing(strEmail) OrElse strEmail.Trim().Length = 0 Then Throw New System.Exception("No Email Address was supplied, please rectify and try again.") End If</code> • strSubject = "Workflow request for project : " & K2.ProcessInstance.DataFields("ProjectCode").Value • strBody = "Project Title : " & K2.ProcessInstance.DataFields("ProjectTitle").Value & "" & System.Environment.NewLine & "" & System.Environment.NewLine & "Dear Sir\Madam" & System.Environment.NewLine & "" & System.Environment.NewLine & "Your workflow has been sent to the following personnel:" & System.Environment.NewLine & "Line Manager : " & K2.ProcessInstance.DataFields("LineManDest").Value & "" & System.Environment.NewLine & "TPC : " & K2.ProcessInstance.DataFields("TPCDest").Value & "" & System.Environment.NewLine & "" & System.Environment.NewLine & "Yours sincerely," & System.Environment.NewLine & "" & System.Environment.NewLine & "The GENTLC Team." • Must Contain a link to the GenTLC website <p>Email sent to LM</p> <ul style="list-style-type: none"> • objSender.SmtpServer = K2.StringTable("GENTLC_SMTP") • strFrom = K2.ProcessInstance.DataFields("MailFrom").Value • strEmail = K2.ProcessInstance.DataFields("LineManEmail").Value • Validation: <code>If IsNothing(strEmail) OrElse strEmail.Trim().Length = 0 Then Throw New System.Exception("No Email Address was supplied, please rectify and try again.") End If</code> • strSubject = "Workflow approval request for project : " & K2.ProcessInstance.DataFields("ProjectCode").Value • strBody = "Project Title : " & K2.ProcessInstance.DataFields("ProjectTitle").Value & "" & System.Environment.NewLine & "" & System.Environment.NewLine & "Dear Sir/Madam" & System.Environment.NewLine & "" & System.Environment.NewLine & "You have a new workflow item in Gen.TLC from the following:" & System.Environment.NewLine & "Originator: " & K2.ProcessInstance.DataFields("CreatorDest").Value & System.Environment.NewLine & "" & System.Environment.NewLine & "Yours Sincerely" & System.Environment.NewLine & "" & System.Environment.NewLine & "The Gen.TLC Team." • Must Contain a link to the GenTLC website

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	Retraction email sent to TPC & LM	Email sent to TPC & LM <ul style="list-style-type: none"> • SmtServer = K2.StringTable("GENTLC SMTP") • strFrom = K2.ProcessInstance.DataFields("MailFrom").Value • strEmail = K2.ProcessInstance.DataFields("CreatorEmail").Value • Validation: If IsNothing(strEmail) OrElse strEmail.Trim().Length = 0 Then Throw New System.Exception("No Email Address was supplied, please rectify and try again.") End If • strSubject= K2.ProcessInstance.DataFields("ProcessTypeDesc").Value & " approval for project code : " & K2.ProcessInstance.DataFields("ProjectCode").Value • strBody = "Project Title : " & K2.ProcessInstance.DataFields("ProjectTitle").Value & "" & System.Environment.NewLine & "Workflow request was retracted as requested." & System.Environment.NewLine & "" & System.Environment.NewLine & "Yours Sincerely" & System.Environment.NewLine & "" & System.Environment.NewLine & "The Gen.TLC Team." • Must Contain a link to the GenTLC website
Scenario 6	GenTLC	
TPC sends a project for approval and the Station LM rejects the project	Original email sent to TPC & LM	Addressed Above
	LM Rejection email sent to TPC	Email sent to TPC <ul style="list-style-type: none"> • SmtServer = K2.StringTable("GENTLC SMTP") • strFrom = K2.ProcessInstance.DataFields("MailFrom").Value • strEmail = K2.ProcessInstance.DataFields("CreatorEmail").Value • Validation: If IsNothing(strEmail) OrElse strEmail.Trim().Length = 0 Then Throw New System.Exception("No Email Address was supplied, please rectify and try again.") End If • strSubject = K2.ProcessInstance.DataFields("ProcessTypeDesc").Value & " approval for project code : " & K2.ProcessInstance.DataFields("ProjectCode").Value • strBody = "Project Title : " & K2.ProcessInstance.DataFields("ProjectTitle").Value & "" & System.Environment.NewLine & "" & System.Environment.NewLine & "The project " & K2.ProcessInstance.DataFields("ProjectCode").Value & " was declined by your Station Manager. " & System.Environment.NewLine & "" & System.Environment.NewLine & "Please contact the relevant person for more detail." & System.Environment.NewLine & "Yours Sincerely" & System.Environment.NewLine & "" & System.Environment.NewLine & "The Gen.TLC Team." • Must Contain a link to the GenTLC website
Scenario 7	GenTLC	
TPC sends a project for approval and the	Original email sent to TPC & LM	Addressed Above
	LM Approval email sent	Email sent to TPC

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Station approves project	LM the	to TPC	<ul style="list-style-type: none"> objSender.SmtpServer = K2.StringTable("GENTLC_SMTP") strFrom = K2.ProcessInstance.DataFields("MailFrom").Value strEmail = K2.ProcessInstance.DataFields("CreatorEmail").Value Validation <code>If</code> IsNothing(strEmail) <code>OrElse</code> strEmail.Trim().Length = 0 <code>Then Throw New</code> System.Exception("No Email Address was supplied, please rectify and try again.") <code>End If</code> strSubject = K2.ProcessInstance.DataFields("ProcessTypeDesc").Value & " approval for project code : " & K2.ProcessInstance.DataFields("ProjectCode").Value strBody = "Project Title : " & K2.ProcessInstance.DataFields("ProjectTitle").Value & System.Environment.NewLine & "The project " & K2.ProcessInstance.DataFields("ProjectCode").Value & " was approved by the Station Manager." & System.Environment.NewLine & "Yours Sincerely" & System.Environment.NewLine & "" & System.Environment.NewLine & "The Gen.TLC Team." Must Contain a link to the GenTLC website
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8.2 User Interfaces

8.3 Hardware Interfaces

N/A

8.4 Software Interfaces

N/A

8.5 Communications Interfaces

N/A

8.6 Module Interfaces

N/A

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9 Configuration Changes

Testing Requirements

9.1 Test Scenarios

Application Name:	GENTLC			
Test Case Name:	Project Approval with K2 Blackpearl Upgrade	T/C #:	1	
Description:	Testing whether the projects are approved successfully and emails notifications were sent to the relevant users, with the workflow now running on K2 Blackpearl.	Status:	Not Started	
Start Conditions:	The user must have access to the QA website and is able to log into the system.	CR#(s):		
Overall Pass Criteria:	Projects are sent for approval and approved by the required approvers, with no errors. The relevant users have received email notifications at various stages of the workflow process.			

Test Information

Name of Tester:		Date:		
Build Number:		Time:		
Test Data Used (acct, ssn):		O/S:		
Comments		Browser:		

16 steps	Number of steps complete by status:			0	0	0	% Complete:	0%
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Step	Action	Expected Result	Pass	Fail	N/A	Comments	CR#
1	Login as a SE and create a new project. Populate the necessary fields that are required for workflow. When ready, click on the 'Forward for Approval' button.	The workflow is successful and a success message will appear. An email notification is sent to the SE and LM.					
2	Login as a LM and navigate to your workflow inbox. Select the project that was created by the SE and click on the 'Approve Workflow' button.	The workflow is successful and a success message will appear. An email notification is sent to the SE and TPC.					
3	Login as a TPC and navigate to your workflow inbox. Select the project that was approved by the LM and click on the 'Approve Workflow' button.	The workflow is successful and the project is finally approved. A success message will appear. An email notification is sent to the SE.					
4	Login as a SE and open up an approved project. Make a change to the project title and click on the 'Save Changes' button, to change the project mode to WIP. Ensure that the necessary fields that are required for workflow are populated. When ready, click on the 'Forward for Approval' button.	The workflow is successful and a success message will appear. An email notification is sent to the SE and LM.					
5	Select the same project that was sent for approval above and click on the 'Retract Workflow' button.	The workflow is retracted and a success message will appear. An email notification is sent to the SE and LM.					
6	Login as a SE, select an approved project and then send it for CANCELLING approval.	The workflow is successful and a success message will appear. An email notification is sent to the SE and LM.					

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Step	Action	Expected Result	Pass	Fail	N/A	Comments	CR#
7	Login as a LM and navigate to your workflow inbox. Select the project that was created by the SE and sent for CANCELLING approval and click on the 'Reject Workflow' button.	The workflow is rejected and the project is sent back to the SE. A message will appear. An email notification is sent to the SE.					
8	Login as a SE, select the same approved project that was sent for CANCELLING approval, but rejected by the LM and send it for CANCELLING approval again.	The workflow is successful and a success message will appear. An email notification is sent to the SE and LM.					
9	Login as a LM and navigate to your workflow inbox. Select the project that was created by the SE and sent for CANCELLING approval and click on the 'Approve Workflow' button.	The workflow is successful and a success message will appear. An email notification is sent to the SE and TPC.					
10	Login as a TPC and navigate to your workflow inbox. Select the project that was approved for CANCELLING by the LM and click on the 'Approve Workflow' button.	The workflow is successful and the project is finally approved. A success message will appear. An email notification is sent to the SE.					
11	Login as a SE, select an approved project and then send it for CLOSING approval.	The workflow is successful and a success message will appear. An email notification is sent to the SE and LM.					
12	Login as a SE, select an approved project and then send it for PARKING approval.	The workflow is successful and a success message will appear. An email notification is sent to the SE and LM.					
13	Login as a TPC and create a new project. Populate the necessary fields that are required for workflow. When	The workflow is successful and a success message will appear. An email notification is sent to the SE and LM.					

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Step	Action	Expected Result	Pass	Fail	N/A	Comments	CR#
	ready, click on the 'Forward for Approval' button.						
14	Login as a LM and navigate to your workflow inbox. Select the project that was created by the TPC and click on the 'Reject Workflow' button.	The workflow is rejected and the project is sent to the TPC. A message will appear. An email notification is sent to the TPC.					
15	Login as a LM and navigate to your workflow inbox. Select the project that was created by the TPC and click on the 'Approve Workflow' button.	The workflow is successful and the project is finally approved. A success message will appear. An email notification is sent to the TPC.					
16	Login as a TPC and open up an approved project. Make a change to the project title and click on the 'Save Changes' button, to change the project mode to WIP. Ensure that the necessary fields that are required for workflow are populated. When ready, click on the 'Forward for Approval' button.	The workflow is successful and a success message will appear. An email notification is sent to the TPC and LM..					
	End of Test Case						

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10 Documents to be updated

11 References

11.1 Reference Documentation (include reference to test pack)

Name	Location

12 Functional Specification Signoff

This document was reviewed and approved in terms of accuracy and completeness by the following stakeholders:

Role	Name	Signature	Date
Specialist	Ubir Kalichuran		
Specialist	Bhekizipho Ngcobo		
Functional / Cell Lead			
Functional / Cell Lead			
Requester			
Business Representative			
Business Analyst			

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