CreditQuest Technical Upgrade

Statement of Work

September 2023

SOFTWARE GROUP

Table of Contents

1. Document History

Author	Version	Date	Notes
Juliet Abungana	1.0	17 May 2023	First release

2. Document Owner

The owners of this document are listed below:

Juliet Abungana	Product Owner

3. Sign off

This **Statement of Work** has been agreed based on the contents by the following duly authorized representatives:

ACCEPTED AND SIGNED FOR AND ON BEHALF OF THE CLIENT

Company:	TDB
Signature:	
Name:	
Title:	
Date:	

ACCEPTED AND SIGNED FOR AND ON BEHALF OF Software Group

Company:	Software Group
Signature:	
Name:	Juliet Abung'ana
Title:	Product Manager
Date:	05-12-2023

4. Terminology Used

S. No.	Abbreviation	Description
1	CBS	Core Banking System
2	UAT	User Acceptance Testing
3	SG	Software Group
4	CQ	CreditQuest
5	UAT	User Acceptance Testing
6	SIT	System Integration Testing

5. Overview

5.1 Purpose of Document

This document details the Statement of Work (SOW) for the upgrade of CreditQuest for TDB(The Client) who is the end user for this system(End User)

The SoW encompasses the prior oral and written communications between the parties and SG regarding the scope of work and services.

5.2 Project Background

TDB recognizes the need to upgrade to the more robust and modern version of CreditQuest –Credit Management system thus taking advantage of CreditQuest's capabilities to drive lending processes efficiently.

TDB seeks technical assistance from Software group related to the Upgrade of the CreditQuest system from the Version currently in use to the latest CreditQuest Version 23.1.

5.3 Scope of the Project

This SoW outlines the scope, implementation approach, deliverables, conditions, assumptions and project governance for the Upgrade of CreditQuest to better the experience of the End User. It is the intention to deliver CreditQuest with standard Software Group processes. Any deviation from this will be managed via SG change management process.

5.4 Scope deliverables

The following are the project deliverables during the Upgrade

- A technical upgrade of CreditQuest from release 14.1 to release 23.1
- System Training

5.4.1 Out of Scope

The following are Out Of Scope in this Upgrade Project

- Any item not defined as in scope above
- Any other issues not in in scope above

6. Project Definitions

Unless expressly provided otherwise, the following terms as used in this SoW shall bear the meaning ascribed to them.

a. **Acceptance Tests** means the tests which determine whether the Software System satisfies the requirements for testing as will be agreed.

b. **Banking Product** is a good or service provided by a bank that satisfies a want or need.

c. **Baseline** is an approved time-phased Project Plan, plus or minus approved Change Requests.

d. **Configuration** is concerned with reflecting the products, services, workflow and decision rules of TDB using standard configuration tools that are available in CreditQuest. Configuration does not include writing of new codes to compliment standard CreditQuest features.

e. **Core Developments** mean any development or modification to the Software System, made by SG and are delivered in the form of Patches, Project Builds, Service Packs and Upgrades.

f. The **Change Management Process** determines **the process and procedures for managing** changes to the project scope.

g. **Change Request** is a written application for a material deviation to the Services Agreement and/ or the Statement of Work. Once raised, it is appended with an analysis of the change to be effected and associated impact on time and cost. Once approved and agreed, a Change Request forms part of the Services Agreement and/or the Statement of Work.

h. **Customization** refers to the local configuration of the user interface. and Local Development. The key deliverable of customization is the **Custom System Build**.

i. **Deliverables** refers to items of a tangible nature, to be delivered as part of the Project.

j. The **License Agreement** is a contract between SG and the bank governing the contractual terms and conditions related to the provision of the Developments, Recurring License and the related commercial provisions pertaining thereto.

k. **Environment Management** is the process controlling the release of updates between Software Environments.

l. **Go-live** means the date upon which the Software System moves from test environment to production environment; once Go Live occurs the Software System is deemed accepted by the End User**.**

m. **Initiation** is the stage where the scope of the Project is agreed. The key outputs of Initiation are the Statement of Work and Project Plan.

n. **Integration Testing** is concerned with testing CreditQuest within its surrounding architecture, and is focused on the Interfaces to those satellite systems.

o. An **Interface** facilitates communication between CreditQuest and other systems. SG licenses and maintains certain standard interfaces (in accordance with a Software Agreement), e.g. the Core Banking System (CBS). Where a standard interface is not available, local development may be required.

p. **Local Development(s)** means those developments including specific interfaces developed by SG which do not form part of the Software System under the Software Agreement. It specifically excludes local developments performed by the End User or a third party unless otherwise agreed in writing.

7. Project Objectives

The associated timelines are included in the Commercials section of this document. All timelines and the overall project duration will be further detailed, and amended if necessary. It is SG's intention to deliver the project within the established timelines but should any changes in the Scope of the project arise or delay occur as a result of lack of readiness on the part of TDB, such changes may lead to increased project duration and cost.

7.1 CreditQuest Upgrade Schedule

- Below is the envisaged CreditQuest Upgrade project schedule.

Milestone	Deliverable	Responsible	Week 1	Week 2	Week 3	Week 4	Week 5
System Upgrade	Upgraded CreditQuest	**SG**					
Training							
Testing	UAT-ready interface	**SG**					
Deployment, Golive & handholding	Go-live Signoff	**TDB /SG**					

7.2 Project Assumptions

- Only a vanilla upgrade of the system will be undertaken
- Any addition or change to the Scope needs to be agreed in writing between SG and TDB , and will be managed via the Change Management Process.
- TDB should all hardware is correctly setup and configured, prior to project initiation
- TDB should ensure available development, test and UAT environments, including resources for UAT as well as environment management.
- TDB will provide network access and availability (site to site VPN) to SG and should ensure SG has a good connection to all their environments including connectivity for all integration points. Any downtime of these will have an impact on the timelines.

7.3 Training

All training sessions shall be instructor led with plenty of practical exercises. Training will be conducted in English language.
Depending on the training content, it is expected that TDB will avail the following user groups for the end-user training sessions:

For all the CQ backend/server administration training sessions, it is expected that TDB will avail the following user groups:

- I.T staff

Since the above users will go on to become trainers after the SG facilitated training, it is recommended that they have some prior experience with system training.

To facilitate smooth and effective training, it is expected that the following pre-requisites are met prior to commencement of the training:

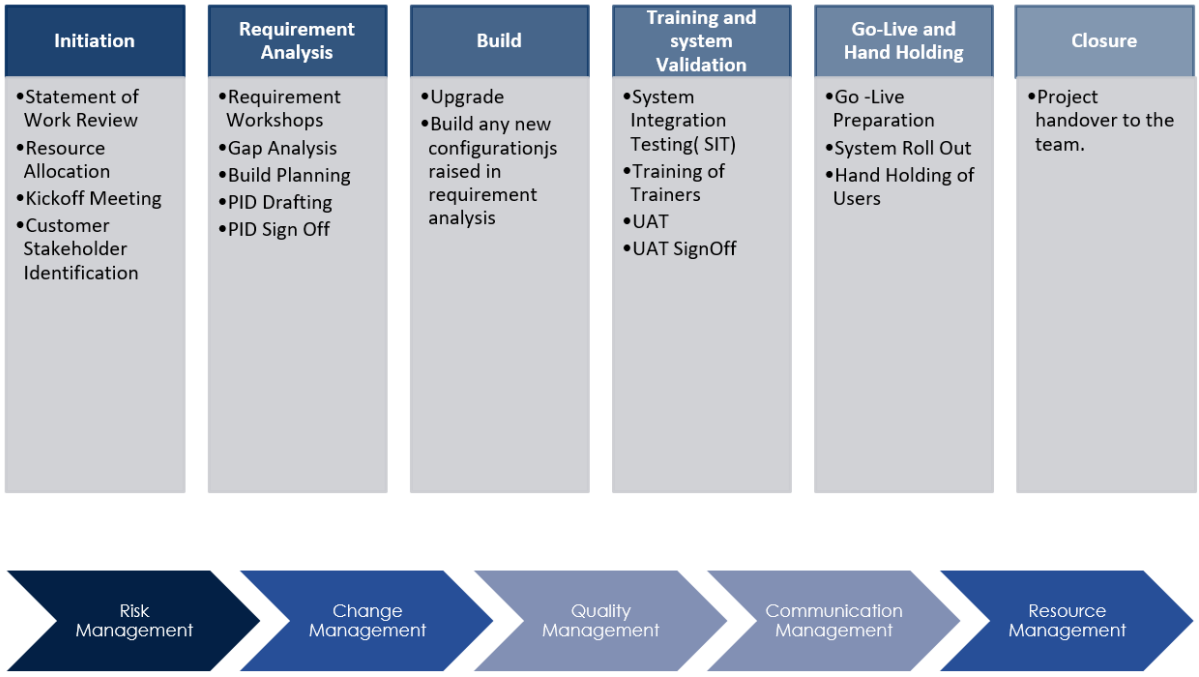
- SG is expected to provide a detailed training agenda highlighting all the content to be covered in each training session (one week prior)
- Formal invitation to all the anticipated trainees should be sent out it good time (one week prior)
- Training facility should be reserved in good time (one week prior)
- Training facility itself should meet the following prerequisites:
  - Good connectivity – training room should be on the same LAN as the TEST server
  - 1 PC per trainee with all required software preinstalled (IE, Silverlight and Flash)
  - PC projector
  - White Board and/or Flip charts
  - Markers

The following lists of trainings topics are included in the scope of the project;

- Functional Training on a Train the Trainer basis. This is based on the upgraded CreditQuest modules and functionalities pertinent to the project.
- Technical Training to IT staff. This will be training that give the End User team adequate skills to “run” the system. This includes Systems Administration, Maintenance and Operations like
    - Table setup
    - User and Group Administration
    - Host data extraction files upload(Account activity)

8. Project Methodology

With the experience gathered from CreditQuest implementations and upgrades over the years SG consultants have developed the necessary techniques and tools; SG employs a strict methodological approach to the CreditQuest implementation process by means of the following steps:



8.1 Critical Success Factors

SG's implementation methodology is highly collaborative and is based upon 11 critical success factors (CSFs) which have been identified as requirements for successful project implementation.

The following CSF's belong to the End User.

- User involvement
- Executive management support
- Qualified client staff
- Ownership
- Clear vision and objectives

The following CSF's belong to SG

- Clear statement of requirements
- Proper planning
- Realistic expectations
- Smaller project milestones
- Skilled experienced consultants
- Proven project methodology & documentation

It will be noted from the list above that there are five CSFs belonging to the End User and six CSFs belonging to SG, user involvement at every stage of the project is critical. . These 11 CSFs give real meaning to SG's concept of partnering long term with our customers for mutual success.

Following on from the above, it follows that all project activities have End User deliverables and SG deliverables which underlie all plans, schedules and work breakdown structures.

8.2 Project Organization

SG will deploy sufficient resources onsite for this project to be implemented within the agreed timeframe. Resources will include -

Peak team size:

- 1 – Project manager
- 1 – Subject matter expert from each division(Corporate , SME, Retail) Business users
- 1 - Subject matter expert from each division(Corporate , SME, Retail) Credit users
- 1- Credit Administration/ Operations Users

A Project team consisting of the following resources is required from the End User:

- Steering Committee chaired by Project Sponsor.
- Project Manager.
- Business Subject Matter Experts
- Testing Team
- Training Team

9. Commercials

Below are the costs for the proposed exercise:

Description	Fee (USD)	Payment Terms
PROFESSIONAL SERVICES FEES – 60 man days		
Requirement gathering (PID) Upgrade Training (Train-the-Trainer) User Acceptance Testing Production Post-live handholding	$42,000	• 25% due on SOW sign-off • 50% due on UAT sign-off • 25% due on completion of Go-live
Total Upgrade Costs	$ 42,000	

TERMS:

- All payments to Software Group shall be exclusive of all local taxes including withholding tax
- Payment against invoices shall be paid within 15 days of receipt by the client
- Additional custom work and integration to third party systems will be addressed under change control

Any changes to the scope will be managed through the change management process and will be invoiced monthly in arrears at the same discounted rates for like consultants as quoted in the tables below. The table below is applicable to CreditQuest consultants only; any other consultants are priced differently.

Resource	**Rate/Day (USD)**
Project Manager	700.00
Test Manager	700.00
Test Analysts	700.00

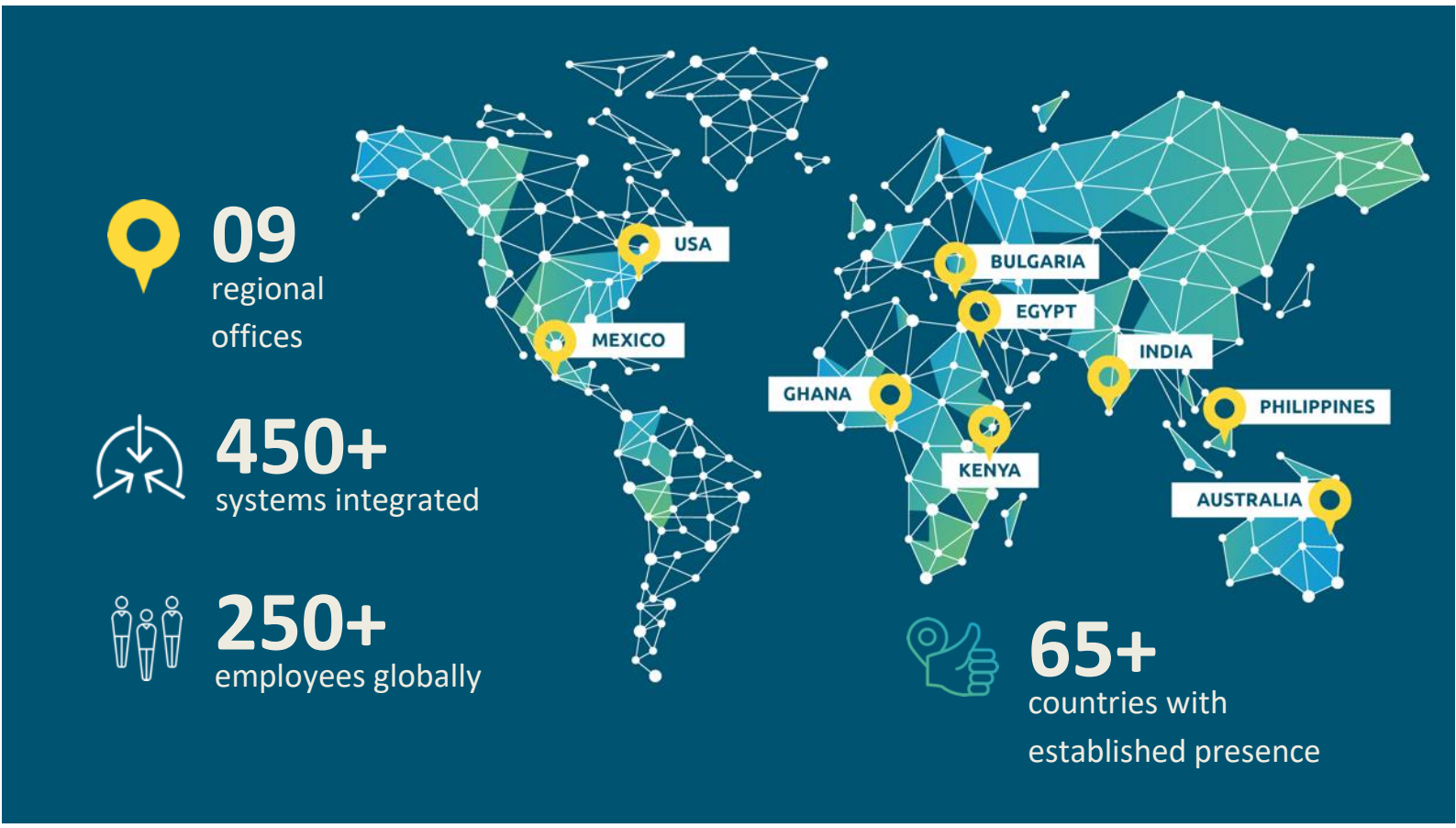
9.1 Terms & Conditions

1. This Professional cost is exclusive of out-of-scope activities which will be billed separately on a time and material basis if TDB Limited would like them factored into the project.
2. All fees and expenses shall be net value, exclusive of any taxes (such as WHT, VAT or GST) and/or any other levies

3. **Invoicing**: Project invoices shall be presented to TDB., based on the completion and sign-off of the milestones described in the payment terms.
4. Project invoices are payable when the indicated milestones in the payment terms have been reached.

10. Why Choose Software Group

Software Group is a global technology company with experience implementing CreditQuest in a wide variety of FSPs (Financial Service Providers) including banks and microfinance institutions. We combine CreditQuest expertise with solutions for digital engagement thereby providing an optimized platform upon which our clients can build their digital strategy. Founded in 2009, we currently serve a worldwide client base in more than 65 countries across Africa, Eastern Europe, CIS countries, Central Asia and the Pacific from 9 regional offices located in Australia, Bulgaria, Egypt, Ghana, India, Kenya, Mexico, the Philippines and the USA.



Some of Software Group's customers are organizations such as Bill & Melinda Gates Foundation, International Finance Corporation (IFC), Asian Development Bank, Asian Confederation of Credit Unions (ACCU), Financial Sector Deepening (FSD), Bank of Kigali, Bank South Pacific, National Bank of Vanuatu, Fullerton Financial Services Holding, Fidelity Bank Ghana, Access Holding, Grameen Koota Financial Services etc.

Software Group is comprised of a highly experienced team of 250+ professionals, with an outstanding track record of handling complex development projects. Additionally, the company collaborates with multiple partners worldwide, leveraging their expertise and services offering to build upon the company's regional competency. Software Group's subsidiary, SG NewTech Limited is dedicated to providing high touch CreditQuest expert services and T24/Transact expert services that covers 3 areas:

- **Run the bank** – application lifecycle management, upgrade, knowledge transfer, COB support, and managed testing service
- **Transform the bank** – Turnkey T24/Transact project, and Implementation of new modules
- **Grow the bank** – Digital transformation and omni-channel, Credit origination, Collection and recovery, Fraud prevention, and Integration

Software Group has achieved multiple awards and certifications; some of which are depicted below.

11. Project Responsibilities, Assumptions and Assertions

11.1 Client Responsibilities

The Client will provide project team members with appropriate working conditions.

This shall include, but shall not be limited to, for each consultant:

- Office, desk, file cabinet
- Workstation Telephone
- Access to local network, mail, intranet, internet (for access to employer distant services)
- Access to the project environments
- Overall IT security

11.2 Assumptions & Assertions

The following list of items includes a combination of re-stated conditions as well as additional assumptions being made by SG NewTech in respect of this SOW.

- Estimations are based on the business requirements, as identified during the discussions so far, and are based on our standard solution. These may vary depending on the exact business requirements identified during the scoping workshop, which is part of the project initiation stage. Exact project implementation estimates will be available after FSD document is signed. Actual efforts are billed on a Time and Materials basis billable per month for the actual days spent in the previous one.
- Any addition or change to the Scope needs to be agreed in writing between SG and TDB, and will be managed by the Change Management Process.
- TDB should ensure timely delivery of hardware, prior to project initiation, and ensure all hardware is correctly setup and configured.
- TDB should ensure available development, test and UAT environments, including resources for UAT as well as environment management. For UAT, SG will avail access to ticketing system, which should be used throughout UAT and for support services.
- TDB will provide network access and availability (site to site VPN) to SG and should ensure SG has a good connection to all their environments including connectivity for all integration points. Any downtime of these will have an impact on the timelines.
- There is no data migration activity accounted in this project.
- User acceptance testing is performed by TDB to assure the requirements and expectations are met before the solution is installed on Production environment.

- National Holidays are not accounted for in the timeline.

11.3 Exclusions, Caveats, Additional Remarks

- SG would welcome further discussion to clarify any further project elements, if required.
- This SOW has been prepared on an indicative price basis. SG will not be liable for any changes to the requirements or specifications provided in the scope of work. Any such changes thereafter will affect services on a Time & Materials basis, based on the rates quoted by SG. As UAT and post implementation support can be extremely variable depending on factors such as the Bank 's internal resources and availability, we have applied the following as our basis for the estimation:
    a. SG's experience with clients having a project scope and characteristics similar to the bank. Required services will be provided in a professional manner using international standards and practices.
    b. SG's current understanding of the bank's requirements as stated in the Scope of Work.
    c. The acceptance by the Bank of SG's standard terms and conditions – any deviation from these may impact estimations and thus, prices.

12. SG Project Control

12.1 Overview

As an aspect of SG's understanding our bank client's various environments, processes and objectives, and based on our experiences with various banking solutions SG NewTech identifies the following key areas of control as being critical to the successful implementation of an implementation project:

(1) Project Management
(2) Risk Management
(3) Quality Management
(4) Test Management
(5) Communication Management
(6) Change Management
(7) Documentation Management

Each of the Key areas is expanded on below.

12.2 Project Management

A Project Charter document will be prepared at the beginning of the project in consultation with all project stakeholders at the client bank and signed-off. A supporting Project Plan will also be prepared in MS Project, which will describe project schedules and timelines of the project. The documents will be baselined and tracked with the bank's nominated person.

The project charter document contains:

- Roles and Responsibilities
- Standard Templates to support the project process
- Project communication, Status reporting and review

The focus is on the following:

- Meticulous and detailed planning
- Regular reviews with stakeholders
- Effective scope control & change management process
- Effective Risk management through active participation of all stakeholders in identifying project risks and risk mitigation activities

SG proposes to put a fulltime resource with strong Project Management skills to manage the following key project management activities:

- Project planning, control and monitoring
- Project communication, Status reporting and review
- Meticulous and detailed planning
- Resource Planning, allocation and optimization.
- Manage stakeholder expectations at the project level
- Keep the centralized control for onsite / offshore team
- Regular reviews with stakeholders
- Effective scope control & change management process
- Effective Risk management through active participation of all stakeholders in identifying project risks and risk mitigation activities.

Project Management tools such as Templates, Charts, and Check Lists are used to track and monitor the processes.

Project dependencies are analyzed to formulate an appropriate plan optimizing on costs and speed of delivery. The Plan is carefully managed and monitored to ensure adherence to Project goals.

12.3 Project Management Team

This forms the layer below the Program Management Team and comprises of project manager / technical lead. His / her responsibilities include:

- Typical aspects covered under delivery management are providing day-to-day project management, facilitate smooth project execution, define processes, troubleshooting, coordinate with the client bank project team for interaction and risk management
- Project management will be involved in technology and delivery related issues.
- Managing the issues concerning the day to day operations of the project like resource requirements, application problems, project status, etc. and are at a project level.

12.4 Project Team

Project team consists of stream leads and business & technical team members. Responsibilities of the team include

- Participating in all business and technical discussions, design and development activities
- Participating in reviews contributing to the quality of deliverables
- Delivering all the deliverables within time and schedule
- Periodically reporting the status to project manager / stream lead

12.5 Risk Management

Risk monitoring and mitigation is an ongoing process throughout the life cycle of the project implementation. The SG NewTech Project Manager will identify the possible risks proactively at each stage of the project and take necessary risk mitigation actions, escalating issues to the designated person from the client bank as required.

Project Specific Risk

- Sufficient environments not available for the relevant implementation
- Sufficient bank staff not available for SIT and UAT

Other Project related Risk:

The Team availability is one of the major risks monitored during this particular project. People identified for the project are committed for a fixed period, and not released before a first level of results (to be defined in the contract). Extensive documentation is done as part of the project which serves as reference for other team members. Team work approach is followed to distribute the knowledge within the team, which reduces the dependency on individuals.

Risk is an element of all projects, especially high tech projects. The greater the degree risk is controlled and managed; the better is the chance of success. The key to controlling project risks is to identify project risks from the start and to review them throughout the project's life cycle in a controlled, systematic manner.

Project management evaluates project risk in six dimensions:

- **Company risk:** This is the risk of project failure or delay.
- **Project team risk**: This is the risk of a project team not suited to the task, due to limitations in technical or application expertise or due to team stability.
- **Application risk**: This is the risk of disrupting existing processing flows by not fully understanding the impact of the new application.
- **Technical risk**: This is the risk of choosing the wrong hardware or software for the project.
- **Project risk**: This is the risk due to the project size.
- **Knowledge risk:** This is the risk of having team members which do not have the correct knowledge or know how to execute and deliver the project.

Risk Monitoring and Tracking:

The top ten Risks:

1. Shortage of technically trained manpower
2. Patch not received for core issues from the development team
3. No SCOPE management
4. UAT/SIT not completed on time
5. Manpower attrition and turnover
6. Externally driven decisions forced on the project
7. Unrealistic schedules
8. Working on new technology (hardware and software)
9. Insufficient business knowledge
10. Link failure or slow performance

Once the project manager has identified and prioritized the risks, the next decision is what to do about them. The main task is to identify the actions needed to minimize the risk consequences, this action, included in the activity of the project, is called generally “Risk Mitigation” step.

The best recommendations to reduce project risks are:

Think small:

Break project down to the smallest manageable parts. Break the system into subsystems, and then form the project into subsystem development teams. This enforces modularity in design and programming and reduces project size and project team risks.

Phase implementation:

It is necessary to arrange the project tasks so that the ones with the most payback are done first. The scheduling must be adapted for visible results early in the project.

Reduce dependencies:

It is important to limit the dependence on other part of projects or systems. Enforcing the use of modularity and clean interfaces between systems will help if one system changed during the project.

Make use of others’ work:

It is not necessary always to reinvent the wheel, better find how to use existing components, tools and software packages.

Risk management requires that risks be identified and prioritized, and actions to be taken to minimize their impact. The risk perception may also change with time. This dynamism implies that risks will not be treated as static and will be re-evaluated periodically. This review will be included in each milestone report, with the status of risk mitigation steps and the current risk perception and strategy.

Process:

The process for handling risks consists of four steps:

- Definition of risks
- Definition of preventive actions
- Determination of the contingency allowance
- Risk and action follow-up

This process must be initialized at the beginning of the project and reactivated as often as necessary.

Risk Mitigation:

Managing includes anticipating. It is only by anticipating events that the right solutions can be found to solve the problems, which never fail to arise throughout the project.

Anticipation is one of the most difficult exercises that exists and is one of the main causes of difficulties of project management.

The process will, therefore, help managers to anticipate risks; it must be used carefully to avoid being drowned in a flood of imaginary risks, but with the objective of facing problems which may really occur and can have a significant effect on the project's results.

12.6 Quality Management

A quality management plan should be agreed prior to project start up. It then must be carried out and the results monitored. SG and the client bank should agree on Quality management procedures.

The quality management plan applies for the local development and testing of the application (as mentioned in the scope of work).

SG PM manages the implementation teamwork, to ensure dedication, productivity and quality.

Check lists and jointly agreed procedures are in place and are signed for each stage of the project, ensuring the completion of the project within time schedule and provisions.

12.7 Test Management

The objective of testing the implemented CreditQuest is to verify that the system functions are working as per Bank's current requirements.Testing is split into SIT, UAT and Regression Testing.

SG can provide examples of UAT test scripts drawn up for other banks and provide assistance and guidance to the bank to modify these test scripts to cater for the customized Bank system.

System Integrated Testing (SIT)

SIT is carried out to verify that functionalities within CreditQuest and all relating interfaces involved in the project are operating correctly in isolation as per the requirements.

SIT Connectivity testing is carried out to verify the connectivity of CreditQuest to the required external system interfaces are working.

Entry and Exit Criteria are established to govern the start and end of test cycle within each test phase.

This section shows Entry and Exit Criteria that will be used as a baseline for the CreditQuest Project. The criteria shown below will be expanded upon to provide the actual criteria to be used throughout the Transact Implementation Project Test Phases.

Once finalized, the content will be agreed and approved and retained for use when the actual time approaches for them to be used.

Test readiness review meeting will be conducted at the end of each phase to determine if both the exit criteria of the previous test phase and entry criteria of the next phase are met.

Entry Criteria for SIT

Criteria	Responsibility
Code review completed and Code Review Log produced	SG
Unit Testing completed and Unit Test Log produced	SG
Component Log and Unit Test Log reviewed and accepted	SG
Completed updates (if any) to technical documents	SG/BANK
Test environment (including external interfaces) must be available and stable, i.e. the system parameters, static data and connectivity setup completed	BANK
Test data setup completed and available	BANK
Test Plan and SIT Scripts reviewed and approved	SG/BANK
Pass SIT ***Readiness*** Test	BANK

Exit Criteria for SIT

Criteria	Responsibility
All test cases have been executed and sign-off	SG/BANK
0% outstanding High Severity Defects remaining	SG/BANK
<5% outstanding Medium Severity Defects remaining	SG/BANK
<10% outstanding Low Severity Defects remaining	SG/BANK
All outstanding defects are logged with Due Date for fixing	SG/BANK
SIT Test Report reviewed and sign-off	BANK

Suspension Criteria for SIT

The criteria used to suspend all or a portion of the testing activity is defined below.

Suspension Criteria for SIT
> 50% total defects encountered in a module are 'High' severity
Test environment issues
Design, development rework
Significant Requirements changes

User Acceptance Testing (UAT)

After SIT, the system will be subjected to User Acceptance Testing (UAT). This will be conducted by business user's representative from each entity with support from business and technical teams. The objective is for the users to prove that the system conforms to the requirements specified in the Requirements Specifications.

The testing shall include end-to-end functionality testing on a simulated Production environment to demonstrate that the system meets the specifications to enable the business to ultimately make the 'Go' or 'No-Go' decision. The UAT will be conducted based on the UAT test scripts provided to the business users by the Testing Team. The scripts will be based upon the business structure as a baseline.

The business users will review the test scripts and sign off the baseline UAT test scripts to be used for UAT. Business Users will follow the UAT scripts throughout their testing in accordance with the test schedule. The Business Users involved in testing will get familiar with the whole test script content and testing process prior to UAT.

Any requirement for ad-hoc additional 'free-format' testing will need to be discussed directly with the Project Manager.

Entry Criteria for UAT

Criteria	Responsibility
SIT completed successfully and SIT Test Report Sign-off	SG/BANK
Test environment (including external interfaces) must be available and stable, i.e. the system parameters, static data and connectivity setup completed	BANK
Test data setup completed	BANK
Test Plan and UAT Scripts reviewed and approved	BANK

Exit Criteria for UAT

Criteria	Responsibility
All test cases have been executed & sign-off	SG/BANK
No outstanding High Severity Defects remaining	SG/BANK
Maximum of 5 outstanding Medium Severity Defects remaining	SG/BANK
Maximum of 10 Low Severity Defects	SG/BANK

All outstanding defects are logged with Due Date for fixing	SG/BANK
UAT Test Report reviewed and sign-off	BANK
UAT Sign-off	BANK

Suspension criteria for UAT

The criteria used to suspend all or a portion of the testing activity is defined below.

Suspension Criteria for UAT
> 25% total defects encountered in a module are 'High' severity
Test environment issues
Design, development rework
Significant Requirements changes

When the suspension criteria are met, the Project Manager with Bank will make a joint decision on the test activities to be suspended. Test activities that must be repeated when testing is resumed are identified to ensure that required testing conditions are re-established prior to the resumption of testing.

Regression Testing

Regression testing is performed whenever there is a bug fix scheduled for roll out. This is to validate that no unwanted changes were introduced to one part of the system as a result of fixing a defects to another part of the system.

Assumptions

The assumptions are as follows:

- Test environments for the various test phases are made ready and available according to the test schedule.
- The Entry and Exit Criteria templates shown as part of this document will be expanded after the release of this document. The specific criteria items for UAT criteria will be agreed with the business units as acceptable for use.
- External Interface systems are ready for testing. Any modifications required to these systems have been completed and unit/application tested.

- Nominated key user representatives across all entities are available to execute the tests as per the test schedule.

The above assumptions are critical for successful completion of testing as per schedule and SG expects the client bank's full support as required.

Test Monitoring Results

During SIT, Defect review meeting will be held twice a week. The purpose of the meeting is to get an update on the outstanding defect status and update the team on the status of the testing. The following will be discussed in the meeting:

- Test issues and risks
- Defect severity classification
- High severity defects found and their resolution
- Defect statistics (Severity wise outstanding defects and Ageing of defects)

The participants of the meeting include, Project Manager, IT Project Manager, Business Consultant, and Technical Stream Leader.

During UAT, the frequency of the meeting is daily (Depending on the defects). The agenda and participants of the meeting remains the same.

Final Sign-Off

Upon completion of SIT and UAT, a Final Test Report will be submitted to the Bank for review and approval. In addition, a 'SIT Sign-off – Release into production' and 'UAT Sign-off - Release into Production' will also be provided to the Bank for sign-off. This signifies the successful completion of the development of the project and fit to release into production.

12.8 Communication Management

Communication Management ensures :

- on time deliverables
- on time updates and circulation of status reports (ad hoc, daily, weekly and monthly)
- accurate information within the implementation team through ad hoc, daily, weekly, and monthly meetings (both SG NewTech and the Bank)
- minimization of risks and delays

Project Communication Tools:

- **Issue Tracking System**

The project team will investigate the feasibility of employing an issue tracking tool will be applied for project documentation, issues, risks, reporting, and incidents during the project. Every stakeholder should have access to this tool.

- **Chat Channel**

The project team members should have some chat channel for daily communication such as Skype

- **Email and Conference Call**

The Daily communication can be done by email or conference call as needed.

- **Documentation of day to day tasks**

MS-Project or alternative will be used as a tool for documentation for every day task

12.9 Change Management

The objective of Change Management is to ensure that the Project is successful and that the business benefits of change are realized. The purpose of change management is to manage change requests so that the approved changes will be controlled, ensuring the project remains on schedule, within budget and provides the agreed deliverables.

The Change Management is the mechanism used to initiate, record, assess, approve and resolve project changes based on an issue, risk or new requirement. Project changes are needed when it is deemed necessary to change the scope, time or cost of one or more previously approved project deliverables. Most changes will affect the budget and/or schedule of the project.

Our change manage process is as follows –

PROCESS	RESPONSIBLE	DESCRIPTION OF ACTIVITY
1. Identify Change	SG Project Manager	Based on the project (work plan) progress and budget, the SG Project Manager will determine if a change request is needed

PROCESS	RESPONSIBLE	DESCRIPTION OF ACTIVITY
		based on the issue, risk or a new requirement in order to maintain the success of the project. The Project Manager identifies, documents in the Change Control Log, and is responsible for scope change follow through.
2. Approve Change	CCB	The Change Control Board (CCB) must approve the change before it can be submitted for impact analysis.
3. Submit Change Request	Client Project Manager	Client's Project Manager must submit in writing a Change Request form to the SG Project Manager.
4. Initial impact assessment	SG Project Team	The SG Project Team does an initial impact assessment and effort break down on: Scope, Development, and Testing. The Project Manager must update in writing the Change Request form and send it to the Change Control Board (CCB) for approval.
5. Accept and approve Change Request	CCB	The Change Control Board (CCB) must approve the updated Change Request form before creating the Change Proposal.
6. Create Change Proposal	SG Project Team	Based on the approved Change Request, the SG Project Team creates a Project Proposal document and does the required analysis, design and full impact assessment.
7. Accept and approve Change Proposal	Client Project Manager	If the impact assessment is increased significantly, the CCB must accept and approve it, otherwise Client's Project Manager must accept and approve the Change Proposal document.
8. Implement the change	SG Project Team	The change goes through the same development -test-acceptance-live phases as a normal project deliverable.
9. Close the change	SG Project Team	The change is closed once the request has been resolved/implemented.

12.10 Documentation Management

Milestones for Deliverables

The goals of Documentation Management are to:

- Organize and standardize document production
- Provide document accessibility
- Ensure all project members work from the latest version of a document
- Provide a mechanism for document distribution
- Prevent the loss of records and documents
- Eliminate the need for storage of multiple copies of the same document
- Improve project communication through knowledge sharing

Project Document Repository

The Project Document Repository is a central file structure used to provide an identification of key project and account records, to store documents, and to track the current revision. The major objectives of the Project Document Repository are:

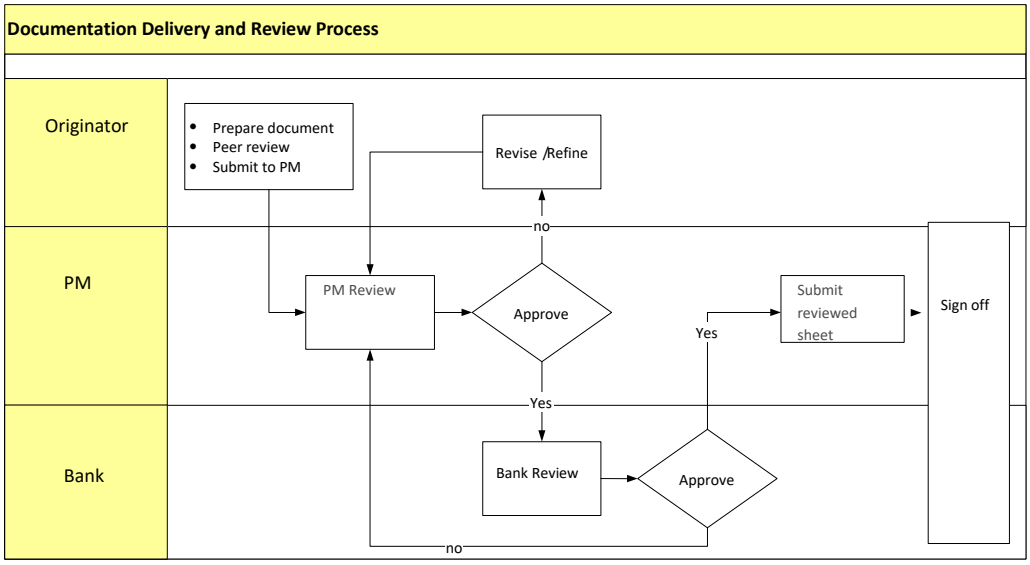
- To organize and store documents in a central system;
- To uniquely identify each document;
- To track the revision status of documents;
- To provide an audit trail of project document deliverables;
- To be a project record manifest for use during project record archival

The Project Document Repository is managed and maintained by the bank's PM/project office. It is a working tool which will evolve as documents are identified and created during the project lifecycle, however an initial version is provided in for information.

Assumption: SG NewTech will use Bank's Project Document Repository tool.

Review and Sign-Off

The Diagram below illustrates the review and sign-off process for documentation



Documentation Review and Sign-Off Process

Key success factors

In such a project, it is important to identify the factors that contribute most to the project success in order to give appropriate attention to them during the project set up.

SG NewTech considers the following key success factors to be of utmost importance:

- **Focus.** Effective communication and project management from both sides combined with the spirit of partnership can ensure that all effort is focused towards the end result of having a successful project.
- **Clarity.** Role allocation and objective setting for every contributor must be clearly defined. The Bank members and each member of the SG NewTech Team have their own areas of skill and excellence that must be utilized appropriately. Each task must be performed by the appropriately skilled entity. This provides for the necessary flexibility in, and a high level of timely responsiveness to, the project control and process.
- **Cascading Information.** There must be close cooperation among all of the contributors through an efficient communication process. Frequent follow-up meetings involving the project managers of all the entities and the subsequent cascading of this information through all levels of the project members ensure a common understanding.

- **Adaptive Risk Management.** The frequent monitoring of risks promotes the timely identification of potential issues that could jeopardize areas of the project which could contribute to preventing the whole project being implemented in the agreed scope of time and cost. Appropriate Risk monitoring and management allows for corrective actions being taken early and any necessary additional actions being performed in order to minimize the possible impact of the risk.
- **Project Management and team building.** A project manager will co-ordinate the activity of sub project managers / team leaders and identifies and neutralizes any risks / sources of delay. In addition the Project Manager must have a clear vision and understanding of Bank's environments. SG will deploy staff to the project that will embrace changes and are experts in the Bank domains as well as certified PMPs for project management roles.
- **Change Management.** Implementing such a project is a critical path to client satisfaction. Once both job scope and project schedule are validated, additional changes should be avoided.
- **Avoid Missed Milestones resulting in Project Slippage.** Realistic targets need to be set from the start of the project; the milestones are to be continually tracked and any possible slippage managed carefully and timely. This is an inclusive task and the Bank is also involved in managing this. Progress against these milestones will be reviewed by the project team and is to be presented and evaluated at the relevant project governance meetings. Any foreseen delays either by the Bank or SG will be treated as a high priority item for resolution and presented at the relevant governance meetings

It is important that **The Bank** and **SG** have a clear vision of the overall scheduling and identified constraints before starting the project. SG is able to provide flexible solutions to solve such issues and the final project plan will take all of this into consideration.

13. Hardware & Software Requirement

Hardware Requirements	CM/RM	FA	PM
Test Environment (CM,FA,RM and PM)			
1x6 core 3.2GHz processors	X	X	X
8 GB Memory	X	X	X
300 Hard Disk Space	X	X	X
Color Super VGA (1024x768 or higher resolution) monitor	X	X	X
DVD-ROM Drive	X	X	X
Windows Server 2016 Enterprise Edition (64-bit edition, with latest SP)	X	X	X
Microsoft SQL Server 2016	X	X	X
Microsoft SQL Server 2016 Analysis Services			X
Microsoft IIS Version 8.0 or greater	X	X	X
Microsoft .NET Framework 4.8	X	X	X
Live Environment (Database server)			
1x6 core 3.2GHz processors	X	X	X
32 GB Memory	X	X	X
1 TB Hard Disk Space[1], RAID V	X	X	X
Color Super VGA (1024x768 or higher resolution) monitor	X	X	X
DVD-ROM Drive	X	X	X
Windows Server 2012 Enterprise Edition (64-bit edition, with latest SP)	X	X	X
Microsoft SQL Server 2016	X	X	X
Microsoft SQL Server 2016 Analysis Services			X
Live Environment (Application Server)			
1x6 core x 3.2GHz processors	X	X	X
8 GB Memory	X	X	X
300 GB Hard Disk Space	X	X	X
Color Super VGA (1024x768 or higher resolution) monitor	X	X	X
DVD-ROM Drive	X	X	X
Windows Server 2016 Enterprise Edition (64-bit edition, with latest SP)	X	X	X
Microsoft IIS Version 8.0 or greater	X	X	X
Microsoft .NET Framework 4.0	X	X	X
Users Workstations			
1x2 core x 1GHz processors	X	X	X
1 GB Memory	X	X	X

Hardware Requirements	CM/RM	FA	PM
1 GB Available Hard Disk Space	X	X	X
Color Super VGA (1024x768 or higher resolution) monitor	X	X	X
Microsoft .NET Framework 4.8	X	X	X
Adobe Flash 10 +	X	X	X
Network printer access	X	X	X