



Implementation of eGovernance initiatives for Citizen Centric Services in Tea Board of India

Annexure FRS



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Glossary of Terms	
AIN	Application Identification Number
ADA	Application Development Agency
DA	Dealing Assistant
DDTD	Deputy Director Tea Development
DGFT	Directorate General of Foreign Trade
DTP	Director Tea Promotion
ED	Executive Director
eGiCCS	eGovernance initiatives for Citizen Centric Services
FSSAI	Food Safety and Standards Authority of India
GoI	Government of India
ICT	Information and communication Technology
IT	Information Technology
TBI	Tea Board of India
TBAS	Tea Board Application System
TMCO	Tea (Marketing) Control Order
NABL	National Accreditation Board for Testing and Calibration Laboratories
NOC	No Objection Certificate
DARPG	Department of Administrative Reforms and Public Grievances
CIC	Central Information Commission
CVC	Central Vigilance Commission
MoCI	Ministry of Commerce and Industry
GFR	General Financial rules

HACCP	Hazard Analysis and Critical Control Points
ISO	International Standards Organization
PIs	Principle Investigators
PCC	Per Capita Tea Consumption
SHG	Self-Help Group
PRAN	Permanent Retirement Account Number
NPS	National Pension Scheme
ITC	International Tea Committee
NEFT	National Electronic Funds Transfer
FSMS	Food Safety Management System
TRI	Tea Research Institute
AIN	Application Identification Number
MRN	Material Receipt Number
QC	Quality Check
PO	Purchase Order
CA	Competent Authority
SLA	Service Level Agreement
G2C	Government to Citizen
G2B	Government to Business
G2G	Government to Government
RTI	Right to Information
NOC	No Objection Certificate
RCMC	Registration cum Manufacturing Certificate

SPTF	Special Purpose Tea Fund
QUPDS	Quality Up-gradation and Plantation Development Scheme
UCs	Utilization Certificate
MACP	Modified Assured Career Progression Scheme
HRMS	Human Resource Management System
ESS	Employee Self Service
HOD	Head of The Department
HBL	House Building Loan
GR	Grievance Redressal
ATR	Action Taken Report
IPR	Intellectual Property Rights
CIC	Chief Information Commissioner
SOA	Service Oriented Architecture
VPN	Virtual Private Network
SRS	System Requirement Specifications
MVC	Model-View-Controller
SAN	Storage Area Network
SI	System Integrator
ADA	Application Development Agency
UAT	User Acceptance Test
IA	Implementing Authority/Tea Board
RTO	Recovery Time Objective
RPO	Recovery Point Objective

A. Overview

Tea Board of India, in its pursuit for modernization and reforms has taken up the agenda of comprehensive e-Governance initiative in the organization. The board realizes the enormous benefits that usage of Information and Communication Technologies can bring in increasing the efficiency of the Organization.

The formulation of e-Governance Roadmap is to conceptualize and develop a framework for improvement of service delivery.

This document (Functional Requirement specification) indicatively envisages the behavioural aspect of the system.

The document has been classified into five major parts:

1. Generic requirements which will be used across all the services
2. Common Functionalities
3. Citizen and Business facing services
4. ICT services
5. Technical and non-functional requirements

1. Generic Requirement

1.1. Portal

S. No	Business / Functional Requirement
1.	The system should allow users to access the portal via the internet and intranet
2.	Portal should be responsive and supported on the mobile browsers such as Android, iOS and Windows mobile platforms.
3.	Acknowledge Identification Number (AIN) should be generated to enhance security
4.	The system should have the functionality to provide role based access to various modules/information/repository
5.	The user should be displayed approved/pending/in process service requests after login.
6.	The system should allow users to search for their request on the basis of Acknowledgment Identification Number (AIN) or Applicant details.
7.	The system should display service request details and status on the screen based on the user search
8.	The system should allow users to save the status as a PDF file and/or print the status
9.	System should allow the user to download all applicable forms as e-forms and submit/upload the same e-form once the user has connectivity. Accordingly the related database should be updated with application details
10.	System should provide the user with an Online Help facility like Frequently Asked Questions on configurable workflow of applications. System may also provide video for online self-training
11.	System should allow user to check the authenticity of 'License', certificate of origin etc by providing the license no. on Portal. Portal should also have the facility for checking of authenticity of the output by providing the license no by external agencies or individual as applicable. External agency or individual may be asked for some information as required and after verification the authenticity details may be passed to the applicant. The facility should be there but the exercise of the same depends on Tea Board's acceptance. It applies to all the

S. No	Business / Functional Requirement
	services where the output is referred or submitted for any other process/service by the applicant to government or non-government entity.
12.	System should allow the user to view the time taken to process the service request (to monitor service delivery time) (Technically: system should keep a log of the start time of the registration of the general service request till such time that the status of the application is closed/approved; system should display the user at the end of the service fulfilment, the total time taken to complete the service delivery)
13.	System should provide an acknowledgement with AIN to the applicant (once the application has been submitted online) through 1. Mobile Phone (SMS) 2. Email 3. On Screen along with print facility
14.	System should be able to record the IP address of user
15.	The system should allow user to view menu of services available
16.	Users (Citizen, Business) shall access the portal through public network
17.	User (Citizen, Business) should have facility to view his/her details and service requests only
18.	Auto Escalation matrix along with service levels should be configurable in the system
19.	The system should allow to display the auction process at various locations for public view
20.	The system should allow the users to subscribe Tea Board reports for e.g. statistical reports as per the classification
21.	The system should have the payment component integrated for subscription
22.	Services should be categorized by department
23.	System should have a dynamic configurable workflow engine so that configurable workflows can be changed with minimum effort
24.	The system should have the functionality of integrating with social network sites as per the

S. No	Business / Functional Requirement
	standard practise
25.	The system should have the functionality of reporting by public against unauthorized use of Tea Board's IPR and the same should be alerted to the legal section
26.	The system should have the functionality to include new schemes as introduced from time to time and should have the configurable workflow system.

1.2. Records & Query Management

S. No	Business / Functional Requirement
1.	The system should provide the user to search the repository based on AIN, Service, date range and year/month/week. It should also provide the user to select multiple values for a single field.
2.	The system should allow the administrator to configure / build a query on the searchable data through query builders.
3.	System should provide the ability to store, load and delete custom queries to each user for easy retrieval.
4.	System should maintain the history of data in case of modifications.
5.	System should provide the user with an ability to search using both full and partial strings. This search interface should be made available both as a separate interface and as well as an integrated interface.
6.	System should provide the user to export the search results in the standard formats selected by the user like doc, pdf, xls, etc. in printer friendly format with page numbers printed on every page.
7.	If a user performs a quick or advanced search, the System must never include in the search result list any record which the user does not have the right to access.
8.	System should allow the user to conduct an advanced search based on sub parameters on a major data field

1.3. Periodic Report & Review Dashboard Service

S. No	Business / Functional Requirement
1.	System should present customized dashboards and reports to the users based on their role
2.	System should present various statistics such as summarized information, current progress, monthly numbers, comparative statements, trends with charting capability.
3.	System should allow the user to view alerts/events/reminders
4.	System should present the user with statistics of all applications
5.	System should present the application usage statistics that provide indicators on the application uptake and usage by the Departments/Offices
6.	System should provide role based access to users hence showing required information to the authorized users only
7.	System should enable the users to filter there required information by passing/selecting certain information/criteria
8.	System should allow users to filter results by date and time
9.	System should allow users to filter the results by service name, category, application received, processed, pending along with no of days, rejected, SLA achieved, SLA missed, Fund disbursed, Fund used, Fund remaining etc
10.	System should assign various colour codes like Green, Blue, Red etc for service request closed within SLA, in process and under SLA, Missed SLA etc respectively
11.	System should display the results in various graphical manner and it should also have the functionality to display further details like the particular service request detail, person with whom the request is pending, SLA details etc by clicking on particular graph
12.	The system should have drilldown feature to individual office/department/ application level, if the management wants to review/ view any particular details, in case of any requirement
13.	System should have the facility to export the results (Graphs and further details) to .doc, .csv, .pdf format outputs

S. No	Business / Functional Requirement
14.	System should incorporate business intelligence to compare various results from the dashboard where applicable
15.	System should have the provision to integrate with existing NSE-IT auction system and represent the desired report and numbers in the portal for internal and external users as per the role and classification of data

1.4. Login

S. No	Business / Functional Requirement
1.	System should present option for user (all type of users including internal and external) to create Login through portal
2.	The department user login can be created only by Administrator. Roles and access to permissible services should be set by the administrator upon approval from the department head or concerned authority
3.	Citizen can create login after providing necessary information and will have Dashboard containing option of ▪ New Application request ▪ Status Inquiry ▪ Application history ▪ Information related to Tea Board like schemes, benefits, notices, notifications etc.
4.	The systems should allow change of first password mandatorily for first time login and should also provide change password option along with security question options in case of a forgot password scenario

1.5. Data Repository

S. No	Business / Functional Requirement
1.	The system should allow to store the digitally signed and issued certificates and letters

S. No	Business / Functional Requirement
2.	The system should allow the retrieval of the stored certificate/communications etc. as per the authorization
3.	System should allow to store the proposals, concept papers, project papers, images, audio-video, activity proof etc. for concerned departments (Like promotion and Research)
4.	System should not allow modification of stored data
5.	System should allow smart search for the stored documents
6.	System to keep a track of the user details who access or download the stored documents

1.6. Document Management System

Document Management is used to storing, managing and tracking of digital documents, digital assets including videos and images. Document management results in easy search & retrieval and sharing of electronic documents. Document management also provides the administration security features over the contents of documents and managing the changes.

The following functionalities/features are envisaged for TBI's DMS component.

1. **Storing Management:** Storing Management should manage the knowledge in organization for supporting creation, storage and dissemination of information among the organizational users. It should provide the users a one stop and ready access to information thereby increasing efficiency and timeliness by avoiding the rework. It should play a vital role in retaining the information created either by Citizens, Dealers, present Employees or transferred / retired employees. Documents should be stored in the system through different sources like –
 - a. Different Modules accepting document uploads
 - b. Different Modules generating documents
 - c. DMS module facilitating document upload either from available electronic documents or hard copies scanned, with proper indexing and tagging

Typical features expected are:

- d. Categorization of documents in folders-subfolders just like windows interface.
- e. No limit on the number of folder and levels of sub folder.

Access Control: Access control is used to manage access of documents, programs and other information stored as digital files in a computer. Access Control is expected to be a feature of the Document Management System facilitating editing of documents by an authorized user or team.

Typical features are:

- a. Use automatically folder and sub folder creation for managing access control
- b. Full audit trail of changes and access
- c. Approval process

Search and Retrieval Management: This should manage the easy search and retrieval of the stored documents. It should provide user with a one stop search and retrieval of the documents stored in the system from various sources.

Different searches and retrieval process expected from this are as follows –

- Extensive search facility to retrieve documents or Folders/Files.
- Full Text Search on image and electronic documents.
- Quick browse search as per defined search parameters.
- Full search by meta-data, author, category, document type, document extension etc.
- Extensive document and folder level operation such as move / copy, email, download, delete, metadata association etc.

- 2. Configurable workflow Based Document Management:** A document uploaded in the system should go through a configurable workflow based approval, before being stored in the system. The configurable workflow should be a configurable one and can be changed whenever there is a need of the same.

Tea Board is a producer of voluminous business data which needs to be disseminated to the stakeholders in a user-friendly & effective manner. These data exist in various file formats, structured databases, unstructured file systems, etc. DMS will manage style & deliver all these digital information and business data (pdf, mov, doc, jpeg etc.) and services using a very user friendly, simple to use system.

This will enable the end users to move on to use enhanced Document Management System and Enterprise Content Management System in the near future.

2. Common Functionalities

2.1. Information Provision

The information provision component is envisaged for facilitating the dissemination of information. It had been observed that Information dissemination has been a key impediment in availing services in the current scenario. Lack of information regarding the processes and the supporting documents was among the key deterrent or the prime reason why citizens/business weren't able to avail services.

Information dissemination would be a priority while dealing on G2C & G2B front. The Information provision component would help citizens avail all basic information regarding the G2C services being provided by the eGiCCS-Portal, so as to effectively execute the information provision component, Application Vendor/content uploading agency will be vested with the responsibility of uploading the information on the Portal/ application. The following information shall be included in the Information provision component:-

- i. Procedural information related to services
- ii. Service fee
- iii. Required supporting documents and form
- iv. Service levels for the delivery of service
- v. Process to validate authenticity of the documents
- vi. Escalation matrix

The Application Vendor will accept only duly signed documents from the authorized persons in various departments for updating on the website. The various head of departments or the authorized persons in those departments will draft the content and be responsible for the same.

2.1.1. Functional Requirements

S. No	Description
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S. No	Description
1.	The system should allow only the officials to update information obtained from the departments
2.	The system should provide detailed information on the following to the user: a. Scheme Name b. Eligibility Criteria c. Nodes of obtaining service d. Application Fees e. Grievance filing procedure f. Authorities to contact g. Forms and documents required h. Other locations for obtaining detailed information
3.	The system should be able to add new information components besides the above
4.	The system should be accessible to citizens, department officials, other government officials etc.
5.	The system should have the functionality to provide role based access to various modules/information/repository
6.	The Board/Department should be able to update the document over the eGiCCS application but this information would not be viewable to the end user until the department head puts his digital signature verifying its authenticity and correctness.
7.	The system should not allow any unauthorized user to upload information besides Department officials
8.	The system should have different presentation layer for each set of users i.e. Information seekers, updaters, approvers etc.

S. No	Description
9.	The system should notify the Department Head once the information is updated over the application
10.	The system should allow the Department Head to either approve or reject the information update
11.	The system should update information over the system only after digital signature of the department head has been put up on the information update
12.	The system should ask for digital signature of the department head in case of rejection also.
13.	The system should ask for desired changes from the Dept Head in case of rejection by the department head
14.	The system should notify the Department officials both in case of acceptance or rejection of the information update
15.	The system should allow only the Department officials to make changes in the updated information hosted over the application
16.	The system should request Department official to put his digital signature after each updation
17.	The system should have a counter at the bottom of the page to record the number of people visiting the website so as to estimate the usefulness of information in terms of number of users
18.	The system should auto generate grievances in case of Department Head or Department officials are not performing against their agreed service levels
19.	The system should support multi-lingual interface as per localization and language technology standards

2.2. Form Availability

All services rendered by eGiCCs would be initiated with the application form submitted by citizen. Hence availability of application forms is a critical success factor which has been diligently re-engineered and shall be a core G2C & G2B component.

All services being rendered under eGiCCs would be required to have standardized application forms. These forms should be easily available to citizens. Citizens must be able to easily access or download the most recent version of the application form. Citizen through authorised user of the Board would be able to upload the filled forms in eGiCCs.

Various head of departments or authorized persons of those departments will make sure that any change in the Performa of the form is immediately notified to the Application Vendor who will then manage the updation of the form.

2.2.1. Functional Requirements

S. No	Description
1.	The system should store all the service request forms at predefined location for the selected services
2.	The system should be able to retrieve all service request forms from the predefined location
3.	The system should ensure that service request forms are easily downloadable in both PDF, HTML and word format
4.	The system should provide for printable versions of the service request forms
5.	The downloaded form should have all required field validations and the input fields should be editable in the form
6.	The downloaded form should have facility to upload and save as attachment or as eForms
7.	The system should have facility of offline form availability in the system in case of network down.
8.	The system should give an error message in case it is not able to retrieve the application from the given location

9.	The system should have a provision for uploading new version of the forms as and when it is required to change the version
10.	The system should maintain the version control for the service request form
11.	The system should have a security feature embedded for changing the version of the form and should allow only predefined process owners to change the form version
12.	The system should maintain log for all version change with the details of the process owner making version change
13.	The system should not allow to change the content of the form and should be in read only version
14.	The system should facilitate the availability of service request forms through - Online / website - Board counters
15.	The system should allow for easy searching of the service request forms
16.	The system should have an easy and user friendly layout for locating the service request forms
17.	The system should be able to export forms in multiple formats so as to ensure compatibility of forms
18.	The system should have a life counter feature to keep track of number of forms being downloaded from the application
19.	The system should support multilingual/unicode interface as per Localization and Language Technology Standards.

2.3. Application Receipt

All services rendered by eGiCCS would be initiated with the structured input submitted by citizen at Board office or portal. Hence first hand verification of documents and proper filling of form is a critical success factor.

Citizen/Business through authorised user at Government Board office would be able to apply for service through eGiCCS.

Various head of departments or authorized persons of those departments will make sure that any change in the supporting documents or mandatory field or fees shall be updated to the system through Application Vendor.

2.3.1. Functional Requirements

S. No	Description
1.	The System should enforce secure login as per the Login process
2.	The System, on successful login, should display the Main page or the Home page of the Applications Services Request with links to various services as per the Service Request Form.
3.	The System should be able to retrieve and load the online Application Form for the service as selected by the Applicant / Operator and save the application as draft first.
4.	The System should assign Unique Acknowledgment identification Number (AIN) to every form.
5.	The System should allow the Operator / Applicant to take a printout of the form before submitting it.
6.	The System should allow editing of the details in the online Application form even after a printout has been taken.
7.	The System should allow the Operator / Applicant to attach any scanned documents or any other supplementary attachments as required with the Application Form
8.	The System should imprint the AIN and the ID details of the operator on the Application Form
9.	The System should allow the operator/applicant to submit the Application Form online

S. No	Description
10.	The System should enforce that the operator/applicant has duly filled up the Application Form and all its associated attachments before accepting it for submission
11.	The System must display a message for Successful or Unsuccessful submissions and it should log all such events
12.	The System must refresh the page and Load a new Application form in case the previous submission attempt was unsuccessful
13.	The System should save the Application Form and all attached documents into a Database
14.	The System should immediately forward, electronically, the Application Form and the attachments and notify to the Process Owner, as identified in respective processes.
15.	The System should be able to generate a Receipt for the Applicant, and allow it to be printed along with alerts and notification
16.	The system should allow the applicant to raise query against the AIN number to the department owners/officials directly through their login
17.	The system should allow the officials to attend/revert with responses for the queries
18.	The system should support multilingual interface as per Localization and Language Technology Standards
19.	The eGiCCS Application must support Digital Signatures of any of the Certifying Authorities registered under the Controller of Certifying Authorities, and must be modifiable as per the changes made by the respective Certifying Authorities on the structure of the Digital Signatures issued by them
20.	The Digital Signatures used and the eGiCCS Application must provide the Time Stamping of the act of Digitally Signing a document as mandated by the IT Act 2000.

2.4. Delivery Mechanism

The Delivery Component shall be used for delivering the output of the service request to the applicant. This will include receiving the processed application/license from the concerned line departments, application status, issuing the license and updating the application status against the AIN.

Printed copies of digitally signed documents should be made valid and have a legal Value

2.4.1. Functional Requirements

S. No	Description
1.	The system should be able to provide delivery against all service requests as required
2.	The system should be able to link delivery against specific service request through unique AIN
3.	The system should allow delivery only when the service request has been either approved / rejected
4.	The system should allow only validated predefined users to log into the eGiCCS application for retrieving the delivery against the service request. The system should allow the delivery of outputs through email as well.
5.	The system should ask for unique AIN to retrieve specific service delivery
6.	The system should allow downloading of service delivery output only after matching the digital verification
7.	The system should provide the printable version of the service output
8.	System should prompt the user to validate the digital signature first before printing to avoid error on printed output
9.	The system should print unique AIN on every service output generated through it
10.	The system should print the URL of the site from where the content of the service delivery may be verified
11.	The system should be able to maintain the database of all service delivery output in a logical manner to ease the retrieval of the same as and when required

S. No	Description
12.	The system should have a counter to keep log of all delivery made with specific association of unique AIN
13.	The system should support multi-lingual interface as per localization and language technology standards

2.5. Rejection

The Application Rejection Component shall be used in case if applications are rejected at any point during the processing of the request. This shall make it mandatory for the authorities to cite the reason for rejection and upload the application rejection report & application status against the AIN in the eGiCCS Application. Applicant shall also be informed about the application rejection status via Notification.

Purpose of including this component in the BPR framework is to

- Make the G2C & G2B service system more transparent & accountable
- Providing reasons for rejection of application to the applicant
- Allow the officials to formally reject an application, if it does not meet the desired criteria
- Return the fees of Applicant in case of rejection as applicable

2.5.1. Functional Requirements

S. No	Description
1.	The system should allow authorized users to login to the system for rejecting the service request based on rejection criteria as mentioned for the service through a valid user ID and password
2.	The system should show a login failure screen in case the user name and password are not verified by the eGiCCS application
3.	The system should have a provision where the predefined process owner states the reason for rejection of the service request
4.	The system should reconfirm from the user for initiating the digital signing before actually initiating the process
5.	Upon digitally signing the document, digitally signed document should be saved in the given repository for future references and a hard copy of the same document should be generated for the applicant
6.	System should not allow the user to make any alteration in the digitally signed document or access the database only on entering the unique encrypted key/code

S. No	Description
7.	System should display an appropriate message in case of retrieval failure or any other communication failure or in case the document could not be found due to any reason
8.	The system should allow the user to terminate the rejection process at any point of time during rejection
9.	The system should keep and maintain the data in a data repository (database) for all the rejection made
10.	The system should keep the records of all transaction performed and link it to the unique code of digital signature
11.	The system should open a page informing the user of successful completion of rejection function
12.	The system should not allow the user to modify the rejection once it has been digitally signed
13.	The system should not allow the user to delete any service request pending for approval at his end
14.	The system should have the provision to re-process the rejected applications if wrongly rejected with entering proper reason as per the role

2.6. Digital Signatures & Notification

The Notification component will provide alerts and notices to Applicant and concerned officers on activity like submission, rejection and delivery.

2.6.1. Functional Requirements

S. No	Description
1.	The eGiCCS Application must support Digital Signatures of any of the Certifying Authorities registered under the Controller of Certifying Authorities, and must be modifiable as per the changes made by the respective Certifying Authorities on the structure of the Digital Signatures issued by them. a. The Digital Signatures used and the eGiCCS Application must provide the Time Stamping of the act of Digitally Signing a document as mandated by the IT Act 2000
2.	The system should intimate the users through predefined channels for pending service request application on a daily basis
3.	The Application should be able to notify the concerned officer by SMS or email as applicable or required
4.	Application should be able to populate the Dashboard for the concerned officer about the New Application, Pending application.
5.	The Application should be able to notify the Applicant by SMS or email as required and applicable whenever status of application change or any information is passed like clarification required, information not received etc.
6.	The application should be able to fetch the mobile no and other details of the applicant for the necessary action

2.7. Status Tracking

The objective of this component is to keep track of the service levels of the various processes involved in a given service. This component shall be beneficial for two categories of users i.e. Applicant & Departmental users. These users would be able to track status of the request with help of the Acknowledgement identification number generated for the service request.

Each application by an applicant will be logged against a unique Acknowledgement identification number generated at the time of application submission and given to the applicant for future references and status tracking.

The purpose of the component is as follows:

- To ensure transparency in service processing by the government to the citizen/business for the service request made.
- To establish the validity and sanctity of the well defined service level.
- To ensure and define responsibility and ownership of the actors towards service delivery.

Whenever the eGiCCS Application detects an SLA being exceeded, it should automatically escalate the issue to a higher authority as per a defined escalation matrix.

2.7.1. Functional Requirements

S. No	Description
1.	The system should have integrated auto status tracking features embedded in the overall architecture of the system
2.	The system should keep track of all the service requests from the citizens/business along with the respective unique application reference id generated at the time of application receipt
3.	The system should be available in public, Login and administrative views respectively
4.	The system should be able to keep track of the status of all service requests with the help of the respective unique AIN and map the current status with the pre-defined service level against each process.
5.	The system should be able to detect any change in the status of a given unique AIN

S. No	Description
6.	In case there is a change in the status of a application , the system should update the status information in the database
7.	The system should have provisions for intimating the applicant about the current status of his/her application through SMS and/or Email especially if there is a change in the status with respect to the final delivery of the service
8.	The system should not provide details about the internal service levels to the applicant and only provide update about the status with respect to the final delivery. This feature should also allow the system to update the applicant if there is any change in the service level of the final delivery
9.	System should display the link for eGiCCS Application portal from where the applicant can retrieve the status information by entering the AIN
10.	The system should also allow the applicant to retrieve update about his/her service request by sending a SMS containing the AIN
11.	System should display the number from where the applicant can retrieve the status information by sending SMS along-with the AIN
12.	The system should display an appropriate message if the system is unable to retrieve the details due to any reason like connectivity issues, maintenance issues, etc and also provide contact details of the system administrator and alternate link (if available)
13.	The System should have Side Menu on each page so as to reflect the contents of the containing directory, making it easier to navigate the site and locate the link for retrieving update against a given reference id
14.	The system should be adequate security features built in the architecture of the system to ensure that it cannot be hacked or manipulated
15.	The system should not allow the users to edit the details of the application upon retrieving the status update against a given reference id
16.	The System should allow the end user to print the status update information if the applicant is

S. No	Description
	retrieving the status through the portal or email
17.	The system should allow the applicants to send specific application related query through the AIN in portal
18.	The systems should allow the users to respond the specific query through AIN to the applicant and the same should be done with alert and notification

2.8. Payment Components

The Payment Component shall be used for accepting any kind of service related payments for application fees or service delivery. These will include processing fees charged by the Board. This component shall also account for the fund flows from the collection points to the concerned departments and Board account where the payments need to be deposited in the form of DD/Cheque etc. as applicable. Purpose of including this component in the framework is to:

- Citizens/Business pay only what is defined as per the charter
- Provide Secure and trusted process of payment collection and deposit in the respective account for respective services and account the same
- All payments shall have authorized acknowledgements

The system should have all the standard features for a secure transaction while integrating with payment gateway

2.8.1. Functional Requirements

S. No	Description
1.	The system should allow financial transaction functions
2.	The system should check for all details of the service request form before initiating the payment
3.	The system should enable the payment option only when all the fields of service request forms are filled
4.	The system should return back and highlight the field which have inconsistencies / error for user to rectify the error
5.	The system should retain all the information of the service request form besides those having inconsistencies
6.	The system should open a new page for recording payment details against the service request
7.	The system should allow payment to be registered on the service application request against the following:

S. No	Description
	a. Payment against the service b. Payment against the dues / payments as defined
8.	The system should record and maintain all details of payment against a AIN and account details
9.	The system should be able to maintain all the payment records in a database and retrieve the same as and when record
10.	The system should able to record specific payment details on the service request form after successful payment has been made
11.	The system should have the facility to refund the fees collected online/offline as applicable
12.	The system should support multilingual interface as per Localization and Language Technology Standards
13.	The system should allow online transaction through approved financial instruments a. Credit cards b. Debit cards c. Net banking
14.	On-line payment – The System should support online payment, including the following fields: a. Facilitate payment against dues and recoveries online through a payment gateway interface with a bank b. Allow the user / customer to make payment only till the last date of payment has not passed. c. Facilitate automatic updation of the information on the applicant record, upon realization of the submitted money
15.	The system should ask for the final confirmation from user before initiating payments function
16.	The system should allow for user re-verification before initiating payment function through transaction unique ID allocated to the user
17.	The system should provide for migration to a secure payment gateways from the portal in a

S. No	Description
	secured manner
18.	The system should allow predefined data / information to be provided to payment gateways
19.	The system should be able to generate unique ID codes for every transaction
20.	The system should be able to correlate and confirm a. User data / information through unique ID code generated b. Payment gateway data information through Unique ID code
21.	The system should provide for confirmation of transaction to the user and Tea Board
22.	The system should provide for payment receipt against the payment
23.	The system should provide printable version of receipt
24.	The system must not store any critical information of the user provided on the secured payment gateway
25.	The system should allow for data / information transfer / flow to eGiCCS application
26.	The eGiCCS should facilitate automatic updation of the information on the applicant record on successful payments made
27.	The system should not allow any initiation of payment function beyond prescribed date for transaction. The system should provide user friendly information for such transactions
28.	The system should provide for database security
29.	The system should provide for application security
30.	The system should follow predefined payment rules and regulation as defined from time to time in the eGiCCS application
31.	The confirmatory receipt issued should have a unique registration number against the transaction
32.	The system should maintain records of such transaction for users accounts respectively
33.	The system should allow for printable version of the confirmatory receipt for all such

S. No	Description
	successful transactions
34.	The system should be able to send emails on registry value of the user account on the payments
35.	The system should maintain all information and records of user transaction tagged to the user account and also provide for viewing of such information as and when required by the user
36.	The system should not allow any changes to be made by the user into the following: a. Past records b. Ongoing transaction once confirmation on initiation of such a transaction is given by the user c. Any values maintained for such transaction
37.	The system should be compatible for easy integration with accounting and financial application either inbuilt at a later stage into the portal or external with an interface with the portal
38.	The system should allow updation of manual deposits for any receipt
39.	The system should allow to create the disbursement payment records like subsidies, welfare activities or any other payment to be made by Tea Board
40.	The system should allow the authorization by competent authority before initiating the payment process
41.	The system process the payment disbursement requests in batch through a payment gateway and update the eGiCCS
42.	The system should auto update the payment details in the respective cases with information like payment ID no, transaction date, time etc.
43.	The system should store the payment information in database and should allow to generate required reports
44.	The system should send the notification about failed transactions along with reason and update the same in the system

2.9. Dashboard

Tea Board envisages to implement the Tea Board Application System (eGiCCS); the data stored in for the application transaction along with targets etc. shall be shown in dashboard view for the senior management of the Board for quick status check and update and which shall help/supplement the decision taking capacity of the leadership.

2.9.1. Functional Requirements

S. No	Description
1.	System should be able to access the details of service requests and details from the database.
2.	System should provide role based access to users hence showing required information to the authorized users only
3.	System should enable the users to filter there required information by passing/selecting certain information/criteria
4.	System should allow users to filter results by date, time & various category
5.	System should assign various colour codes like Green, Blue, Red etc. for results against evaluation parameters
6.	System should display the results in various graphical manner and it should also have the functionality to display further details on selecting particular section/category
7.	The system should have drilldown feature to individual office/department/ application level, if the management wants to review/ view any particular details, in case of any requirement
8.	System should have the facility to export the results (Graphs and further details) to .doc, .csv, .pdf format outputs
9.	The system should support the following graph/data visualization type, • Line Graph(Single and Multi Series) • Horizontal and Vertical Bar (Stacked and single) • Pie graph (Nested and Single) • Pareto graph

S. No	Description
	• Area graph • Gantt chart • Scatter plot • Speedometer gauge • Bubble plot • Heat map
10.	System should incorporate business intelligence to compare various results from the dashboard where applicable
11.	The system should have the functionality to show the fund budgeted, expenditure, fund available, fund required etc. for various categories and geography
12.	The system should have the ability to add attributes to each category and geographic area.
13.	The system should have the functionality to show the compared figure of budget, expenditure for various heads and previous and current year
14.	The system should have the functionality to show the number of licenses applications received, issued, rejected, pending, renewed, cancelled for various categories, geography and period as applicable and required
15.	The system should have the functionality to show the number of applications for Development section received, issued, rejected, pending, cancelled for various categories, geography and period as applicable and required
16.	The system should have the functionality to show the geographical development activities for various categories
17.	The system should have the functionality to show the number of of welfare applications received, issued, rejected, pending, cancelled for various categories, geography and period as applicable and required
18.	The system should have the functionality to show the number of of promotion applications received, issued, rejected, pending, cancelled for various categories, geography and period as applicable and required

S. No	Description
	applicable and required
19.	The system should have the functionality to show the planned and unplanned promotion activities of the year and calendar and updated
20.	should have functionality to show and analyse data of tea usage, area extension/replanting/uprooting, size wise, age group wise, zone/ district/geography and period as applied and required should have functionality to show production, category wise, type (EF/BLF) wise, SG and BG wise, zone/ district/geography and period as applied and required. should have functionality to show export/import – category wise, type wise, country wise, geography and period as applied and required. should have functionality to show validity of licenses/RCS/TWCs/Buyers/TEs and SGs, type wise, zone/ district/geography and period as applied and required.
21.	The system should have the functionality to show the employee strength, sanctioned, retirement projection, male-female ratio employees, minority ratio, age group of employees, effective working hours etc. in various employee classes
22.	The system should the auction prices for various zones, quantity, quality etc.
23.	The system should have the functionality to highlight any vigilance cases and status/progress
24.	The system should show the details of legal cases along with court order/hearing dates/status etc.
25.	The system should highlight the Board meeting schedules
26.	The system should show the item details like parliament queries open for response not attended
27.	The system should allow to highlight the detail analytic representation of RTI cases and its status
28.	The system should have the ability to capture data from the e-auction website and present the

S. No	Description
	key data points
29.	The system should allow to show the research project details in progress and status
30.	The system should have the facility to show the progress status of various research projects that are ongoing
31.	The system should have the provision to send an alert to all the stakeholders if a meeting request is accepted by the chairman.

B. Functional Architecture & Requirements

The overall Functional architecture is broadly categorized as – “Citizen and Business facing service Architecture” and “ICT service Architecture”. The categories are described as below.

Citizen and Business Facing Services	ICT Services
• Central Licensing • Development Directorate	• Enterprise portal • Enterprise Content Management • Communication • Security services • Performance and SOA Governance

C. Citizen and Business Facing Architecture

L.1.Licensing

The Licensing Department is one of the most significant departments of the Board for implementation of various statutory and regulatory orders issued by the Government of India from time to time. One of the key activities of the Branch also includes monitoring and regulation of the activities of stakeholders to ensure proper implementation of different directives of Central Government and Tea Board issued from time to time. In addition, Licensing Branch provides necessary clarification and guidance to the Tea Industry and trade in relation to different legislation concerning tea under The Tea Act and various Control Orders. The department is also responsible for formulating various regulatory policies, amendment of existing Control Orders, preparation of guidelines for issuance of licenses, etc. which are significant to the tea trade.

Excluding the diverse statutory roles of the department, the Licensing department is primarily responsible for issuance of various licenses like

S No	Types of License
a.	Issuance of fresh exporter license & renewal of exporter license,
b.	Issuance of distributor's license,
c.	Conversion of temporary exporter license to permanent exporter license,
d.	Issuance of fresh tea waste, & Renewal of tea waste license
e.	Issuance of fresh RCMC & Renewal of RCMC
f.	Issuance of NOC for setting up of tea manufacturing unit,
g.	Issuance of factory registration after setting up of tea manufacturing unit,
h.	Issuance of fresh broker's license, & renewal of broker's license,
i.	Issuance of auction organiser license, & renewal of auction organiser license,
j.	Issuance of buyer registration,

k.	Issuance of flavour tea registration,
l.	Permission for extension planting & issuance of planting permit for planting in virgin soils,
m.	Permission for planting tea in favour of the tea estates as new comer,
n.	Recording of change of ownership of the registered tea estates
o.	Recording of change of ownership of the registered tea factories,
p.	Issuance of fresh tea warehouse license & renewal of tea warehouse license,
q.	Fresh enlistment of tea testing laboratory & renewal of tea testing laboratory
r.	Issuance of duplicate certificate, change of address etc
s.	In addition, as a key regulator of the industry and to ensure imports and exports of quality tea in and outside the country, Tea Board has put in place an online checking system called “Tea Council” which has started functioning from June 2013. The monitoring of the entire activities of the system including upgradation of the system from time to time is being done by Licensing Department. It s worth to mention here that this system demands close day to day monitoring to facilitate quality export and import.
t.	The department is also responsible for monitoring e-auction activities on a day to day basis, (e-auction of teas, e-auction of tea waste) and addressing the concerned issues on priority level to facilitate tea trade. Publication of Tea Directory is also of prime importance to this department

L.1.1. Licenses, Registration Certificates and NOC

L.1.1.1. Functional Requirements

Application Submission

- | | |
|----|--|
| 1. | The system should allow both online and offline submission of application along with supporting documents. |
|----|--|

Case A: Online Application Submission

- | | |
|----|--|
| 2. | The system should allow the users to submit the application and upload the scanned |
|----|--|

	documents through the internet/intranet as applicable.
3.	The system should allow partial saving of the application with temporary acknowledgement number
4.	The system should allow receipt of application fee, if/as applicable through the payment gateway
5.	The system should have the ability to generate AIN along with notification on successful completion/submission of the application
Case B: Offline Application Submission	
6.	Applicant shall send the application by courier/post/etc.
7.	The system should allow authorized Tea Board users to upload the offline applications in to the system
8.	The system should allow partial saving of the application with temporary acknowledgement number
9.	Ability to enter the offline application fee (in the form of DD) as applicable, account the same (acknowledgement and confirmation)
10.	The system should allow updating the partially saved application along with the physical received documents
11.	The system should have the ability to generate AIN along with notification on successful completion/submission of the application
Application Processing (Verification, Clarification, Processing)	
Verification, Clarification	
12.	The system should allow the concerned official to check the application details and supporting documents
13.	The system should allow the concerned official to seek clarification from the applicant if required
14.	Verification, system should verify the status of the returns submitted for renewal

	cases. Also, the system should generate a report on defaulters (with a copy to Regional Heads) and a remainder notice to all the individual defaulters for their timely submission.
Processing	
15.	The system should allow to process the application through a configurable workflow
16.	The system should allow the CA to approve/reject the application with proper comments and digital signature
17.	The system should generate the digitally signed certificate/registration/NOC letter as applicable and notify the applicant and user
18.	System should allow application processing as per the “Scheme Related Cases for Processing”
Reverse application fees	
19.	The system should have the functionality to reverse the application fee collected in case of application not processed as per the guidelines
Scheme related cases for processing	
Issuance of Certificate of Change of Ownership of Registered Tea Garden & Issuance of Certificate of Change of Ownership of Registered Tea Facto:	
System should have the functionality to route the application verification through the Law Officer	
The system should have the functionality to re-initiate the configurable workflow for change of ownership approval process after legal scrutiny and comment by the Law Officer.	
For Eol for setting New Tea Manufacturing Unit (Factory NoC):	
The system should allow the Factory advisor to extract the application detail and put the inspection details in the system	

L.1.2. Renewal of Licenses, Certificates etc.**L.1.1.1. Functional Requirements**

S No	Renewal notification and application submission
1.	The system should allow notification to the licensee, certificate holders etc. and Tea Board official
Case A: Online Application Submission	
2.	The system should allow the users to submit the application and upload the scanned documents through the internet/intranet as applicable.
3.	The system should allow partial saving of the application with temporary acknowledgement number
4.	The system should allow receipt of application fee, if/as applicable through the payment gateway
5.	The system should have the ability to generate AIN along with notification on successful completion/submission of the application
Case B: Offline Application Submission	
6.	Applicant shall send the application by courier/post/etc.
7.	The system should allow authorized Tea Board users to upload the offline applications in to the system
8.	The system should allow partial saving of the application with temporary acknowledgement number
9.	Ability to enter the offline application fee (in the form of DD) as applicable, account the same (acknowledgement and confirmation)
10.	The system should allow updating the partially saved application along with the physical received documents
11.	The system should have the ability to generate AIN along with notification on successful

	completion/submission of the application
Application Processing (Verification, Clarification, Processing)	
	Verification, Clarification
12.	The system should allow the concerned official to check the application details and supporting documents
13.	The system should allow the concerned official to seek clarification from the applicant if required
14.	The system should allow receipt of clarification through online and offline mode
15.	The system should allow verification of data with other departments like statistics etc. as applicable
Processing	
16.	The system should allow to process the application through a configurable workflow
17.	The system should allow the CA to approve/reject the application with proper comments and digital signature
18.	The system should generate the digitally signed certificate/registration/NOC letter as applicable and notify the applicant and user
19.	System should allow application processing as per the “Scheme Related Cases for Processing”

L.1.3. Cancellation of Licenses, Certificates etc.**L.1.1.1. Functional Requirements**

S No	Description
1.	The system should generate the list of licensees who defaulted in return filing, renewals etc.
2.	The system should allow to trigger the initiation for cancellation/suspension of licenses/certificates
3.	The system should allow the cancellation request to be processed through a configurable workflow
4.	The system should allow to generate show causes with notification to the licensees and capture their responses
5.	The system should allow the approval of CA for cancellation/suspension
6.	The system should auto update the status of the licenses as cancelled or suspended
7.	The system should not allow processing of any other applications where the rejected license/certificates are supplied

DV.1. Development

Develop directorate offers services for various scheme management, loan recovery from the Tea gardens, factories etc. Services covered under Development Directorate are as follows:

- Special Purpose Tea Fund (SPTF) – (Re-plantation, Replacement Planting, Rejuvenation)
- Quality Up gradation and Product Diversification Scheme (QUPDS)
- Plantation Development Scheme (PDS)
- Orthodox Scheme
- SPTF Loan Recovery

DV.1.1. Development Schemes**DV.1.1.1. Functional Requirements**

S No	Application Submission
1.	The system should allow both online and offline submission of application along with supporting documents.
Case A: Online Application Submission	
2.	The system should allow the users to submit the application and upload the scanned documents through the internet/intranet as applicable.
3.	The system should allow partial saving of the application with temporary acknowledgement number
4.	The system should allow generating challans for bank deposits (with auto-populated information like amount, name, reference etc.)
5.	The system should allow receipt of application fee, if/as applicable through the payment gateway
6.	The system should have the ability to generate AIN along with notification on successful completion/submission of the application
Case B: Offline Application Submission	
7.	Applicant shall send the application by courier/post/etc.

8.	The system should allow authorized Tea Board users to upload the offline applications in to the system
9.	Ability to enter the offline application fee (in the form of DD) as applicable, account the same (acknowledgement and confirmation)
10.	The system should allow generating challans for bank deposits (with auto-populated information like amount, name, reference etc.)
11.	The system should allow partial saving of the application with temporary acknowledgement number
12.	The system should allow to upload the scanned challans and update the system about the successful payment
13.	The system should generate AIN after confirmation from the concerned officials for the applications where the fees have been paid by challans
14.	The system should allow updating the partially saved application along with the physical received documents
15.	The system should have the The system should have the ability to generate AIN along with notification on successful completion/submission of the application/submission of the application
Application Processing (Verification, Clarification & NOC, Inspection, Processing)	
Verification, Clarification & NOC	
16.	The system should allow the concerned official to check the application details and supporting documents
17.	The system should allow the concerned official to seek clarification from the applicant if required
18.	The system should allow receipt of clarification through online and offline mode
19.	The system should give notification and alert to applicant and concerned official for field verification.

20.	The system should allow appointment modification alert to stakeholders
21.	The system should allow the concerned official to enter the field verification comments in system defined format
22.	The system should allow the concerned official to issue digitally signed NOC and notification to the applicant. The same should be downloadable by the applicant.
23.	The system should allow the applicant to update the field activity through online and offline mode
Inspection	
24.	The system should schedule the field inspection and give notification and alert to applicant and concerned official for field verification
25.	The system should have the functionality to reschedule/modify/cancel the inspection schedule both by applicant and user.
26.	The system should allow the concerned official to enter the inspection comments in system defined format
Processing	
27.	The system should allow to process the application through a configurable workflow
28.	The system should allow the CA to approve/reject the application with proper comments and digital signature
29.	The system should generate the digitally signed sanction letter and notify the applicant and user
30.	The system should initiate the payment disbursement process
31.	System should allow application processing as per the “ Scheme Related Cases Processing ”
Disbursement	
32.	The system should notify the user about any outstanding default SPTF loan amount of the applicant that needs to be adjusted from the payment
33.	The system should allow the user to adjust the SPTF loan amount from the payment/stop

	payment
34.	The system should notify the finance department of Tea Board to make the payment
35.	The system should allow the user to make the payment through the payment gateway and send notification to the applicant with the transaction details.
36.	The system should also allow the manual disbursement using DD/Cheque/etc. and the details should be updated in the system and generate notification.

DV.1.1.2. SPTF Loan Recovery**DV.1.1.1. Functional Requirements**

S No	Loan re-payment notification
1.	The System should be able to notify the concerned official about the loan defaulters and loan reminder/notification that should be sent to the beneficiaries in regular intervals
2.	The system should generate and allow concerned officials to view the notification letter and reminder letters
3.	The system should allow the concerned official to take up the following actions such as: 1. Send alerts and notification to the beneficiaries 2. Print the digitally signed reminder letters (so that the letters can be sent to the beneficiaries in the form of hard copy)
Loan repayment and refund	
4.	The system should be able to auto calculate the interests & refund amount. System should generate refund list as applicable.
5.	The system should allow the beneficiaries to repay the amount through payment gateway/ DD.
6.	The system should be able to refund the amount to beneficiaries through payment gateway.
7.	The system should account the loan default amount collected through the scheme disbursement
8.	System should allow notification to the beneficiaries about the account transaction details
9.	The System should be able to detect changes in status and send status updates to the beneficiaries
10.	The system should have the functionality of initiating legal case request to legal department after CA approval
11.	The system should have the functionality to enter and update legal proceedings

DV.1.3. Revolving Corpus Fund**DV.1.1.1. Functional Requirements**

S No	Description
1.	The System should allow to store active loan defaulters
2.	The system should generate the notification and letter for default in repayment
3.	System should account the receivable amount for this head
4.	System should account the transaction as per the finance rules

D. ICT Services

The ICT services of the functional architecture will include the following components

- Enterprise Portal
- Enterprise Content Management
- Communication
- Security Services
- Performance and SOA Governance
- Performance Management
- Other Services

D.1. Portal

The portal will have the following features:

- 1 **G2E Interface:** The employee interface (Government to Employee) of Tea Board will be an Intranet and Internet over VPN interface providing a common platform for employees to automate processes like Employee access applicable policies / procedures, and post relevant information for access and usage by Tea Board employees.

The Interface should also include custom enterprise-wide configurable workflows to automate various aspects of Tea Board organization. The employee portal will provide a secure unified access point and should be designed to aggregate and personalize information.

- 2 **G2C & G2B Interface:** The Tea Board external user interface for businesses & stakeholders (including citizens) will be exposed to the Internet and provide content to anonymous and registered users. It should provide information from diverse sources across Tea Board in a unified way. Access to information and services may vary depending on the status of the user, whether anonymous or registered.

The interface should enable the following services:

1. Online application filing
2. Online application tracking
3. Online availability of interactive forms through the webportal

4. Timely information dissemination at all levels with the help of ICT, mobile and hand held devices
5. Empowerment of Citizens through availability of information in public domain
6. Grievance redressal
7. Mobile, SMS and email integration for providing various informational and transactional services

3 G2G Interface: The Government to Government interface will be specifically for governmental organisations and ministries. These stakeholders may interact with Tea Board on a regular basis and some of them have a stake on the Tea Board functioning. An interface will enable effective communication and will reduce the lead time in exchange of information.

The G2G Interface should enable:

1. Easy exchange of information among the internal stakeholders and External Agencies including Ministry.
2. Streamlined file movement and tracking by monitoring and tracing of the file
3. Easy collection, storage and retrieval of data/information
4. Access to common and shared documents and data based on roles
5. Ease of availability of information
6. Ease of monitoring and control over the operations
7. Ease of monitoring of the External stakeholders like Exporters, Factory owners and other License Holders
8. Grievance redressal
9. Mobile, SMS and email integration for providing various informational and transactional services
10. Personnel Information management
11. Knowledge management
12. Report generation without any manual intervention

4 Enterprise Search: Enterprise search is the practice of making content from multiple enterprise-type sources, such as databases and intranets, searchable to a defined audience. Enterprise Search software searches information within an enterprise (the search function and its results may still be public). Enterprise search can be contrasted with web search, which applies search

technology to documents on the open web, and desktop search, which applies search technology to the content on a single computer.

Enterprise search systems index data and documents from a variety of sources such as: file systems, intranets, document management systems, e-mail, and databases. Many enterprise search systems integrate structured and unstructured data in their collections.

- 5 Personalization:** The portal will have the personalization feature for user (especially employees, external stakeholders including research associates). The portal can be personalized as per user group for simplifying and enhancing his/her portal experience. The portal can also be customized by the user as per his/her interests and needs.

Some examples are customizable “quick links”, change skins based on the theme, user recognition, browsing history, recent activities etc. for engaging the user.

D.2. Content Management

1. **Version Control:** Version control is used to manage changes of documents, programs and other information stored as digital files in a computer. Version Control in all practicality should also be a feature of the Document Management System facilitating simultaneous interactive editing of documents by a virtual team.

Typical features are:

- Use check-in/out to automatically version control
 - Version history report as a single document
 - Full audit trail of changes and access
 - Notification of changes to users
 - Approval process
2. **Knowledge Management:** Knowledge Management manages the knowledge in organization for supporting creation, storage and dissemination of information among the organizational users. It provides the users a one stop and ready access to information thereby increasing efficiency and timeliness by avoiding the rework. It will play a vital role in retaining the information created by employees who are transferred to other organizations or retire.

Typical features include configurable workflows, taxonomy, indexing, discussion forums, comment and rate facility, metadata management etc.

3. **Classification, Indexing & Catalogue Services:** Classification and indexing plays a key role in content management. It helps in effective archival & retrieval of enterprise content.

Typical features include:

- Accommodate existing Taxonomy providing navigation across all content through virtual tree structure
- Crawl and index websites, intranets, network drives, Mail Exchange folders
- Ability to provide document summaries & thesaurus of taxonomy terms

Tea Board is a producer of voluminous business data which needs to be disseminated to the stakeholders in a user-friendly & effective manner. These data exist in various file formats,

structured databases, unstructured file systems, etc. Catalogues services will catalogue, manage, style & deliver all these digital information, including spatial (raster, vector) and business data (pdf, mov, doc, jpeg etc.) and services using a spatial platform for cataloguing and delivery.

- 4. Electronic Record Management Functionality:** It deals with capturing, managing, accessing and securing enterprise records for the purpose of protection & preservations.

Typical Features include:

- Ability to create file plans
- Ability to automatically declare Records through Configurable workflow
- Content Management for multiple stages
- Destroy records irrevocably at end of lifecycle after appropriate approval process
- Role based access rights to records & ability to restrict access rights to parts of records
- Audit trail of all actions including destruction

D.3. Communication

The communication system should have the following features:

- 1 Social Networking:** Social Networking has emerged as one of the powerful for communicating to a large audience instantly. Tea Board can use social media for spreading awareness on tea plantation activities among the general public. This feature will enable sharing of information in social networking websites. The information can be articles, natural disaster updates, multimedia, feeds etc.

- 2 Notification & Alerts:** Use of sound files, an animated icon in the system tray, a popup window or some combination of these.

However, if the user is travelling and is on the go, such alerts won't be helpful as the user is away from his computer. In this case, special monitoring software can offer advanced options for mobile email notification including sending a text message to the user's cell phone, sounding an alarm on the phone etc.

- 3 Mobile Device Support:** It will facilitate accessing portal services through mobile devices like PDA, tablet computers etc.. It helps in connecting to portal service on-the-go and also from remote locations.

In future if Tea Board introduces digital field survey mobile devices, then they should be compatible with portal applications for exchange of data/information.

- 4 VPN/Remote Access:** Remote access is the ability to get access to a computer or a network from a remote distance. Tea Board employees at various regional locations and who are travelling may need access to the Tea Board network. Dial-up connection through desktop, notebook, or handheld computer modem over regular telephone lines are common methods of remote access.

This facility can also be part of Virtual Private Network (VPN) which is a network using primarily public telecommunication infrastructure to provide remote access.

- 5 Real Time Dashboard:**

- The data presentation should point directly to the likely source of the problem. Real-time dashboards aren't the place for deep analysis or introspection into the drivers of the business.
- Real-time dashboards are often about tracking activity. It may be useful to show the raw data around these events in the form of a ticker, scroll or RSS feed.
- Getting time right on an operational dashboard is critical. If the measures and trends represent too long a time period, users may not react to changes quickly enough. On the other hand, very small time windows encourage frantic reactions to changes that may not represent real trends. Ideally, the dashboard should offer the ability to configure this time range and "freeze" a moment in time.
- Naturally, alerting users to problems is a central mission for real-time dashboards
- If real-time dashboards are about identifying and responding to issues, the tool should point users to what they can do about a problem
- By the time a real-time dashboard is designed , a strong theory is required to understand how the pieces of the business fit together (i.e. the relationships between key measures, drivers, and available actions)
- Real-time dashboard may not be considered for complex or advanced data visualizations.

D.4. Security Services

- 1 **Directory Services:** A directory service is the software system that stores, organizes and provides access to information in a directory. A directory in software systems is a map between names and values. It allows the lookup of values given a name, similar to a dictionary.

- 2 **User Authentication & Role-based Access:** It is used for authentication & authorization purpose. Authentication identifies the user. Post authentication, authorization is used for analyzing if the user is permitted to access the resources. User authentication is done by providing evidence that it holds a specific digital identity such as an identifier and the corresponding credentials.

Role based access control is an approach to restricting system access to restricted users. For various business functions, roles need to be defined in the Tea Board applications and permissions to perform certain operations are assigned to specific roles. A user can be assigned one or multiple roles.

- 3 **Role Management:** Role management deals with managing authorization, which enables administrators to specify the resources that users in your application are allowed to access. Role management treats groups of users as a unit by assigning users to roles such as HOD (Head of the Department), AO (Accounts Office), and so on. Users can belong to more than one role.

Roles give the flexibility to change permissions and add and remove users without having to make changes throughout the site. Access rules can be defined in ICT system based on role management – such rules can be made independent from individual applications.

- 4 **Single Sign-On:** Single sign-on (SSO) is a property of access control of multiple related, but independent software systems. With this property a user logs in once and gains access to all systems without being prompted to log in again at each of them.

Typical functionalities include:

Σ Define user repository

Σ Configure Identity Management Tool

- 5 **Audit Trail:** It is used for tracking and maintaining history of activities of application access & usage by users.

Typical functionalities include:

1. Identity data items/functional module to be audited
2. Identify auditing attributes
3. Log audit details with timestamp and user details

D.5. Performance Management and SOA Governance**SOA Governance**

- 1 **Service Bus:** A service bus is a software architecture model used for designing and implementing the interaction and communication between mutually interacting software applications in Service Oriented Architecture.

As software architecture model for distributed computing it is a variant of the more general client server software architecture model and promotes strictly asynchronous message oriented design for communication and interaction between applications. Its primary use is in Enterprise Application Integration of heterogeneous and complex landscapes.

- 2 **Web Services:** A web service is a software system designed to support interoperable machine-to-machine interaction over a network. It has an interface described in a machine process-able format (specifically Web Services Description Language, known by the acronym WSDL). Other systems interact with the Web service in a manner prescribed by its description using SOAP messages, typically conveyed using HTTP with an XML serialization in conjunction with other Web-related standards.
- 3 **Messaging:** Messaging system is a set of published Enterprise-wide standards that allows organizations to send semantically precise messages between computer systems. These are facilitated by the use of XML messaging, SOAP and web services.

Performance Management

- 1 **Performance Analysis & Reporting:** Performance analysis will help in determining the load levels, finding pain areas & bottlenecks. It will help in making the portal and applications run smooth, optimization of resources and for capacity planning.

Reporting feature will be helpful in monitoring the processes and will provide decision making information for higher management.

Typical Reporting features include:

- Provide facility to drill down from highly summarized view to detail level view of the available data.

- Ability to have Ad-hoc analysis, given that the required data structure is available
- Ability to provide dashboard feature to view snapshot of highly summarized set of information at a single glance

2 Site Analytics:

Site Analytics is the process of analysing the behaviour of visitors to the Tea Board website. This will enable Tea Board to attract more visitors, retain or attract new users. There are two categories of web analytics: off-site and on-site

- Off-site refers to web measurement and analysis regardless of whether you own or maintain a website. It includes the measurement of a website's potential audience (opportunity), share of voice (visibility), and buzz (comments) that is happening on the Internet as a whole.
- On-site analytics will measure the visitor's journey once on the Tea Board website. This measures the performance in a commercial context and the data is typically compared against key performance indicators for performance.

3 Scalability, Availability & Fault Tolerance:

Scalability is the ability of a system, network, or process, to handle growing amounts of work in a graceful manner or its ability to be enlarged to accommodate that growth.

Availability is a system design approach and associated service implementation that ensures a prearranged level of operational performance will be met during a contractual measurement period.

Fault-tolerance or graceful degradation is the property that enables a system (often computer-based) to continue operating properly in the event of the failure of (or one or more faults within) some of its components.

4 Configurable workflow:

Configurable workflow management defines and manages sequence of tasks for achieving a business outcome. At each stage of the configurable workflow there is a task to be performed by individual or group with defined organizational role who is responsible for the task.

Configurable workflow management should have the feature of notifying and reminding the individuals who are responsible for the subsequent task.

D.6. Other Services

1 Master Data Management: The following are the functionalities of Master Data Management

- Data Collection
- Data Transformation
- Normalization
- Data Consolidation
- Taxonomy Service

2 Grievance Redressal: Tea Board receives grievances from internal stakeholders from time to time. The redressal mechanism may involve collection and presentation of information from one/more departments.

This module will be responsible for managing the Grievances redressal process of Tea Board.

E. Technical and Non Functional Requirements

The technical and non-functional requirements relating to performance, availability, deployment, implementation, operations and others are listed in the subsequent subsection. Based on the assessment of the requirements listed below, SI shall prepare System Requirement Specifications (SRS) and obtain a formal sign-off before proceeding with the design and implementation of the solution.

Technical Solution Architecture Requirements	
1.	The eGiCCS solution needs to be architected using robust and proven software and hardware technologies like Service-Oriented Architecture (SOA) and open industry standards
2.	The solution architecture should be built on sound architectural principles enabling fault-tolerance, high-performance, and scalability both on the software and hardware levels
3.	The system should be designed to have good performance even from offices connected on low bandwidth
4.	Portal and Web applications should be responsive and supported on the mobile browsers of Android, iOS and Windows mobile platforms
5.	The system should be developed to be deployed in a 3-tier data centre architecture
6.	The system should support SSL encrypted connections
7.	The system should be designed for access through browser based systems and must impose minimal requirements on the client device
8.	The system should support secure VPN connections
9.	The system should use HTTPS as the communication protocol
10.	The system should run perfectly on all common browsers
11.	The system should be compliant with W3C, WCAG and other Gov guidelines
12.	The system must be available to users: 24/7 (on all days of the week)
13.	The planned downtime of the system should not exceed 6 hours per rolling 3 months period. The same should be carried out during off peak hours at night.

14.	There should be no single point of failure and adequate level of redundancy should be built in to meet the system uptime requirement. Data backup till the last transaction occurring in the system should be ensured.
Software Architecture Requirements	
1.	Software architecture must support web services standards including XML, SOAP, UDDI and WSDL
2.	Customized or bespoke applications, if any, should be design with minimum 3-tier architecture with UI layer, Business layer and Data Access layer segregated
3.	UI framework should follow standard model-view-controller (MVC) design
4.	Software architecture must support appropriate load balancing for scalability and performance
5.	Software architecture must support flexibility in adding functionalities or applications.
6.	Software architecture components should utilize the high availability, clustering, and load balancing features available in the proposed hardware architecture to increase system performance and scalability features.
7.	Software architecture must support trace logging, error notification, issue resolution and exception handling.
8.	The system should provide for role based control for the functionality within the system
9.	All error messages produced by the System must be meaningful, so that they can be appropriately acted upon by the users who are likely to see them.
10.	The search results should be fetched from the database in batches. The batch size should be configurable in the system.
11.	Records should be displayed on screen in batches/paged manner. The number of records in a page should be configurable in the system.
12.	If a user is inactive for a specified period of time, the user session should expire. The inactivity period should be configurable in the system with a default value of 10 minutes.
Development, Testing, Staging, and Production Requirements	

1.	Appropriate development, test, and staging hardware environments should be provided and explained how they are related to production environment. This must be supported by explanations on how the development, test, and staging environment support the implementation activities of eGiCCS Solution.
2.	Development and test environment should include configuration management capabilities and tools for system configuration, versioning scheme, documentation, change control processes and procedures to manage deployment of solution deployment.
3.	The test, development, and staging environment should include required workstations, desktops, and tools appropriate to support development, testing, and staging, and deployment tasks.
4.	The development, test, and staging hardware environments must include similar operating systems, software components, products, and tools to those of production environment.
5.	The development, test, and staging environments should be independent logically and physically from the production environment and of each other.
6.	The development environment should be used for development and should be configured to allow access for developers' workstations.
7.	The staging environment should be used for functional and user acceptance testing, stress testing, and performance benchmarking.
8.	The test environment should be used as a testing environment of eGiCCS Solution and its software components and products. The test environment should be a scaled-down configuration of the production environment.
Security Requirements	
1.	A secure system should be provided at the hardware infrastructure level, software level, and access level.
2.	Authentication, Authorization & Access Control 2 factors (User ID & Password and Digital Signature) security mechanisms should be implemented to enable secure login and authorized access to portal information and services.

3.	Confidentiality of sensitive information and data of users and portal information should be ensured.
4.	Appropriate mechanisms, protocols, and algorithms necessary to protect sensitive and confirmation data and information both during communication and storage should be implemented.
5.	The system should ensure high standards of security and access control through the following at a minimum: ▪ Prevent cross site scripting ▪ Validate and encode the incoming data /user request ▪ Prevent SQL injection ▪ Prevent cross frame scripting, URL modification and any type of man in the middle attack ▪ Sanitize the user inputs ▪ Do not allow hard delete and perform only soft tagging the row for deletion ▪ Sensitive information like username, password etc. should not be visible in the url
6.	The system should maintain audit trail for all critical actions taken in the system and the system should allow to implement the data retention and classification policies of the board as applicable to restrict the storage of data and access/publication of data
7.	The proposed system should include design and implementation of a comprehensive IS security policy in line with ISO 27001 standards.
8.	The proposed system should provide security including identification, authentication, authorization, access control, administration and audit and support for industry standard protocols
9.	The proposed system should have a security architecture which adheres to the security standards and guidelines such as • ISO 27001 • Information security standards framework and guidelines standards under eGovernance standards (http://egovstandards.gov.in) • Information security guidelines as published by Data Security Council of India (DSCI)

	- Guidelines for Web Server Security, Security IIS 6.00 Web-Server, Auditing and Logging as recommended by CERT-In (www.cert-in.org.in) - System shall comply with IT (Amendment) Act 2008
10.	The proposed system should support the below Integration security standards: - Authentication - Authorization - Encryption - Secure Conversation - Non-repudiation - XML Firewalls - Security standards support - WS-Security 1.0 - WS-Trust 1.2 - WS-Secure Conversations 1.2 - WS-Basic Security Profile
11.	The proposed system should be monitored by periodic information security audits / assessments performed by or on behalf of the Implementing Authority. The scope of these audits / assessments may include, but are not limited to, a review of: access and authorization procedures, physical security controls, backup and recovery procedures, and program change controls. To the extent that the IA deems it necessary to carry out a program of inspection and audit / assessment to safeguard against threats and hazards to the confidentiality, integrity, and availability of data, the Selected Bidder (SI/ADA) shall provide the IA's representatives access to its facilities, installations, technical resources, operations, documentation, records, databases and personnel. The Selected Bidder must provide IA access to various monitoring and performance measurement systems (both manual and automated). IA has the right to get the monitoring and performance measurement systems (both manual and automated) audited / assessed without prior approval / notice to the Selected Bidder
12.	The proposed system should facilitate system audit for all the information assets to establish detective controls. The selected Bidder is required to facilitate this by producing and

	maintaining system audit logs for a period agreed to with Tea Board.
13.	The proposed system should ensure that data, especially those to pertaining to registration process, transaction process as well as the data that is stored at various points is appropriately secured as per minimum standard 128 Bit AES/3DES encryption.
14.	The proposed system should provide database security mechanism at core level of the database
15.	The proposed system should support native optional database level encryption on the table columns, table spaces or backups.
16.	The database of the proposed system should provide option for secured data storage for historic data changes for compliance and tracking the changes.
17.	The proposed system should be able to ensure the integrity of the system from accidental or malicious damage to data
18.	The proposed system should be able to check the authenticity of the data entering the system
19.	The proposed system should be able to generate a report on all “Authorization Failure” messages per user ID
20.	Retention periods, archival policies and read-only restrictions must be strictly enforceable on all logs maintained in the system
21.	The proposed system should be able to monitor security and intrusions into the system and take necessary preventive and corrective actions.
22.	The proposed system should provide ability to monitor, proactively identify and shutdown the following types of incidents through different modes of communication (email, SMS, phone call, dashboard etc): i. Pharming ii. Trojan iii. Similar Domains (old/new)
23.	The proposed system should have the option to be configured to generate audit trails in and detailed auditing reports
24.	The proposed system must provide ACL objects and a security model that can be configured for

	enforcement of user rights
25.	The proposed system should be designed to provide for a well-designed security of physical and digital assets, data and network security, backup and recovery and disaster recovery system.
26.	The proposed system should have tamper proof data storage to prevent unauthorised data tampering
27.	The system should record the ip address of the client machine/device in the audit trail
28.	The proposed system should store User ID's and passwords in an encrypted format. Passwords must be encrypted using MD5 hash algorithm or equivalent
29.	The proposed system should be capable of encrypting the password / other sensitive data during data transmission
30.	The proposed system should have a Business Continuity Plan and a Disaster Recovery Plan prepared and implemented by the selected Bidder before commencement of the operations. Robust backup procedures to be established for the same.

Monitoring and Management Requirements

1.	The eGiCCS System should provide monitoring and management of the entire Solution including all software components and application.
2.	The monitoring and management should monitor health of software and hardware infrastructure running the eGiCCS Solution covering operating system, database, software components, applications, servers, and other related software and hardware components. It should provide proactive monitoring, alerting and reporting.

Performance and Scalability Requirements

1.	The design of the eGiCCS Solution should be scalable to handle increasing number of users.
2.	eGiCCS Solution should provide measurable and acceptable performance requirements for users, for different connectivity bandwidths.
3.	The eGiCCS solution should provide optimal and high performance Portal Solution satisfying

	response time for slow Internet connections and different browsers.		
4.	The system should perform well for a minimum of 300 concurrent users		
5.	The system should perform well on minimum bandwidth of 64KBPS		
Implementation Requirements			
1.	The SI/ADA will be required to deploy manpower and other project resources as per the terms & conditions of the Contract		
2.	The SI/ADA will be required to work closely with the IA and perform detailed functional requirements and analysis of eGiCCS Solution to confirm and document functional / system requirement specifications for the portal and its applications to fulfil its objectives.		
3.	The SI/ADA will be expected to carry the complete implementation and deployment of the eGiCCS within the timelines specified in the RFP.		
4.	The SI/ADA is expected to develop, test, stage, and deploy all functional modules of the eGiCCS software and any hardware components of technical & functional requirements		
Project Management			
1.	Selected SI/ADA is required to provide an implementation plan illustrating all functional analysis, development, testing, staging, and deployment activities.		
2.	Selected SI/ADA is required to specify and describe the different phases and activities of the project. It is very important for the IA that the Selected SI/ADA provide a quality implementation plan covering all aspects of the project. The plan shall clearly specify the start and end dates (relative to contract signing) of each of the project phases specifying key milestones allowing visibility of project progress.		
3.	Selected SI/ADA is required to use standard project management tools such as precedence diagrams, critical path charts, etc. to create and manage implementation plan and schedule. The table below shows the minimum stages and deliverables:		
	Stage	Activities	Deliverables

	Functional & Requirements Analysis	• Define Functional Requirements • Requirements management • Prototyping • Documentation • Data Migration Preparation	• Software Requirements and Specifications Document • Detailed Scope of Work • Work Breakdown Structure • Detailed Project Schedule • Data Migration Plan
	Design	• Detailed Software Solution Architecture design • Detailed Hardware Solution Architecture Design • Data Schema Design • User Interface Design • Integration & Interfaces Design • Prototyping Design Validation • Documentation	• Design Specifications Documents of Software solutions • Design Specifications Documents of Hardware solutions • User Interface Design Specifications • Integration Design Specifications • Data design and migration
	Development	• Software installation, configuration, and customization • Development • Unit Testing • Documentation	• Development Plan • Updated Design Document • Installed software and hardware • Functional modules & Portal Solution • Problem reporting
	Testing	• System Testing • Integration Testing • Regression Testing • Performance/Stress/Volume Testing • Security Testing including Penetration Testing	• Complete Test Cases • Test Plan • User Acceptance Criteria • Test Results and Reports • Problem reporting • Problem resolution testing • Data Migration Testing

		• User Acceptance Testing • User Acceptance Test Results • DC-DR Failover Testing • Completed Test Cases • Data Migration tests • Documentation	
	Deployment	• Training courses and sessions • Operations Planning • User Manual • Operations Manuals	• Knowledge Transfer and training plan • User Manual, Training Manual • Operations Plan • Operations Policies and Procedures
In addition to the above deliverables, the SI/ADA is required to maintain and update the Requirements Traceability Matrix throughout the project duration.			
4.	Selected SI/ADA is required to describe in detail project management processes, methodologies and procedures.		
5.	Describe what IA resources will be necessary for the project to succeed.		
6.	Describe how IA management will receive up-to-date reports on project status.		
7.	Describe the change management procedures to handle such things as “out-of-scope” requests or changing business needs of IA while the project is underway.		
8.	Describe what procedures will be used to keep the project on track, and what escalation procedures will be employed to address any problems with project progress.		
9.	Describe what quality assurance processes, procedures, formal reviews, etc. will be in place.		
10.	Describe the proposed conflict resolution / escalation process between the SI/ADA and IA to handle project or contractual disputes.		

11.	Selected SI/ADA is required to describe the proposed project structure identifying all project individuals including project manager, business analysts, software developers, QA engineers, hardware / network engineers, administrators, Change Management experts, and others.
12.	Selected SI/ADA shall provide a comprehensive warranty that covers all components after the issuance of the final acceptance of eGiCCS. The warranty should cover all materials, licenses, services, and support for both hardware and software. Selected SI/ADA shall administer warranties with serial number and warranty period. Upon final acceptance of the IA, all OEM warranties will be transferred to the IA at no additional charge. All warranty documentation (whether expired or not) will be delivered to IA at the issuance of the final acceptance certificate.
13.	Selected SI/ADA is required to provide Premium Level warranty and support through the vendor for all hardware and software used for eGiCCS. Selected SI/ADA' warranty must cover all equipment and work activities contained in the contract against all design, manufacturing, and environment faults until the issuance of the final acceptance.
14.	Selected SI/ADA is required to commit to the following warranty terms: ▪ All products / components / parts shall be covered under OEM warranty up to the Implementation Phase and AMC support shall commence after successful implementation. ▪ The warranty shall include the repair or replacement of the products / components / parts during the warranty period by the SI/ADA. The replacement products / components shall meet the related specifications without further repair or modification. ▪ Selected SI/ADA shall be liable for all costs including, but not limited to, the costs of material, labour, travel, transport and living expenses associated with the collection and return of the units covered by the warranty. ▪ The date of manufacture or assembly of any equipment, parts or consumables, shall not be more than six months before delivery.

	▪ Selected SI/ADA shall state the location of his repair Centre(s) for all items not being repaired onsite. ▪ IA has the right to require a replacement if the repair is deemed to be impractical. ▪ Selected SI/ADA ensures that replacement components shall be available for any failed component during the warranty period. ▪ Selected SI/ADA shall guarantee the availability of spare parts and technical assistance for all components (or appropriate alternatives) to ensure the equipment would run for at least five (5) years, without major changes, at the completion of final acceptance. Six months advance notice is required on any discontinued part(s) with a suggestion for alternatives. ▪ Selected SI/ADA need to define the process & methodology in their proposal, for achieving the response time of engineers to respond to an incident and also for resolving such incidents as per the SLA. ▪ Selected SI/ADA is required to provide additional training if the satisfaction levels/ learning does not reach 80% in evaluation/feedback from trainees, and expected to provide additional training, if required. ▪ The eGiCCS application & infrastructure being provisioned by the selected SI/ADA shall be insured. The Goods supplied under the Contract shall be fully insured against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery for the entire project term. ▪ Selected SI/ADA is required to explain their warranty, maintenance procedures, and support to meet the terms and requirements outlined above.
Operations Requirements	
1.	The selected SI/ADA is expected to provide the following in support of eGiCCS operations: ▪ Selected SI/ADA shall provide procedure documentation for all operations procedures, and SLA's (based on ITIL best practices) for all the hardware and applications provided

	including backup procedures, system update procedures, security procedures, failure recovery procedures, upgrade procedures, remote access procedures, user manual, SOP's, etc. ▪ All such procedures and documents must be submitted for review and approval by the IA prior to adoption. Such documentation shall be updated during the project term by the SI/ADA as and when required along with the necessary approval. ▪ Selected SI/ADA will be required to provide IA with weekly statistics reports on the various services provided to users a mechanism as well as track and log all related statistical reports on the various delivery channels and access patterns. ▪ Selected SI/ADA will be required to provide IA with weekly portal performance reports showing health of system operations. ▪ Selected SI/ADA will be required to provide IA with Helpdesk for recording all the day to day problems and other technical incidents occur during the O&M phase. This shall also record the resolution of such incidents & problems. ▪ Selected SI/ADA will be required to commit to Service Level Agreements (SLAs) that show, among other metrics, appropriate escalation procedures and guarantee corrective actions within a pre-determined time. Selected SI/ADA is required to respond to required levels of accuracy, quality, completeness, timeliness, responsiveness, cost-effectiveness, productivity and user satisfaction that are equal to or higher than the SLA system requirements.
Quality Assurance & Acceptance Requirements	
1.	Selected SI/ADA is required to develop and implement quality assurance processes and procedures to ensure that the eGiCCS development and operations are performed to meet the quality standards that are relevant to each area in all project phases.
2.	Selected SI/ADA is required to use various tools and techniques that can make tests run easily and the results are automatically measured. In this way, testing tools provide a more cost-effective

	and efficient solution than their manual counterparts. Plus, they minimize the risk of human error during testing.
3.	In order to ensure that such a QA mechanism is effective and acceptance of eGiCCS, the following tests are required for acceptance: ▪ Unit Testing: Basic validation of developed components by developers. ▪ Functional / Internal Integration Testing: Validation of developed components against functional requirements and design specifications. ▪ System Testing: Validation of both functional and technical requirements for the integrated Solution. This could include external integration if required or it can be separated into testing phases. ▪ UAT: User Acceptance Testing (UAT) validation of the Portal Solution and assurance that it meets both functional and technical requirements ▪ Stress and Performance Testing: Load testing enabling understanding of performance and behaviour of Portal Solution under large number of users and high-load conditions. ▪ Security Testing: Security testing to ensure that the system is secured from external and internal threat ▪ DC-DR Failover Testing: Failover testing to ensure that the system is up and running within the stipulated timeframe (Recovery Time Objective) and from the desired point (Recovery Point Objective)
4.	Selected SI/ADA is required to describe their QA and testing approaches and procedures as well as testing tools for conducting various tests in support of the acceptance of the Portal Solution. Selected SI/ADA is expected to follow CMMi level 5 processes.
5.	Furthermore, Selected SI/ADA to describe their documentation standards e.g. Documentation description, documentation identification, content, nomenclature etc. as well.
6.	The SI/IA will support the Cert In certification phase in every possible way and ensure that the eGiCCS project obtains all necessary certifications