



# **Ministry of Trade, Commerce and Food Security**

## **Consumer Affairs Authority**

### **BIDDING DOCUMENT (Volume 2)**

**(Single-Stage Two Envelope Bidding Procedure)**

### **Procurement of Designing, Developing, Implementing and Maintaining of Digital Information System for Consumer Affairs Authority IFB No: CAIS/2023/01**

**Employer: Consumer Affairs Authority  
2nd Floor,  
C.W.E. Secretariat Building,  
No: 27, Vauxhall Street,  
Colombo 02.**

**October 2023**

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## **Section VI. Schedule of Requirements**

# **1. Background**

## **1 Introduction**

The protect consumers' interests and ensure fair market competition facilitated by the adoption of Information and Communication Technology is among key modernization initiatives in many government reform agendas as it offers many advantages.

Consumer Affairs Authority (CAA) is the apex government organization mandated to protect consumers' interests and ensure fair market competition in Sri Lanka. It has been established under the Consumer Affairs Authority Act No.09 of 2003. The act has laid down the legal provisions empowering the CAA to take necessary actions to safeguard the interests of consumers while maintaining effective competition among SIP of goods and services.

The Consumer Affairs Authority commenced its operations from July 2003 with the powers vested by the Consumer Affairs Authority Act No.9 of 2003 which has been certified by the parliament on 17 March 2003. With the enactment of the Consumer Affairs Authority Act, the Consumer Protection Act No.1 of 1979, the Fair Trading Commission Act No.1 of 1987 and the Control of Prices Act of 1950 were repealed and the Fair Trading Commission and the Department of Internal Trade were abolished and replaced with the establishment of the Authority.

In this document refer as the successful bidder as the SIP (Software Implementation Partner)

## **Vision**

A well protected consumer within a disciplined business culture.

## **Mission**

Safeguard consumer rights and interests through consumer empowerment, regulation of trade and promotion of healthy competition.

## **Key functions**

- 1) Control or eliminate –
  - a. restrictive trade agreement among enterprises
  - b. arrangements with enterprises with regard to prices
  - c. abuse of a dominant position with regard to domestic trade or economic development within the market or in a substantial part of the market; or
  - d. any restrain of competition adversely affecting domestic or international trade or economic development
- 2) Investigate or inquire into anti-competitive practices and abuse of a dominant position
- 3) Maintain and promote effective competition between persons supplying goods or services
- 4) Promote and protect the right and interests of consumers, purchases and other users of goods and services in respect of the price, availability and equality of such goods and services and the variety supplied.

- 5) To keep consumers informed about the quality, quantity, potency, purity, standards and price of goods and services made available for purchases.
- 6) Carry out investigations, inquiries in relation to any matter specified in this Act.
- 7) Promote competitive prices in markets where competition is less than effective.
- 8) Undertake studies, publish reports and provide information to the public relating to market conditions and consumer affairs.
- 9) Undertake public sector and private sector efficiency studies.
- 10) Promote consumer education with regard to good health, safety and security of consumers
- 11) Promote the exchange of information relating to market conditions and consumer affairs with other institutions
- 12) Promote, assist and encourage the establishment of consumer organizations
- 13) Charge such fees in respect of any services rendered by the Authority
- 14) Appoint any such committee or committees as may be necessary to facilitate the discharge of the functions of the Authority; and
- 15) Do all such other acts as may be necessary for attainment of the objects of the Authority and for effective discharge of the functions of such Authority

## 2 Key Objectives of CAIS implementation

Following are the main key objectives

a. To protect consumers against the marketing of goods or the provision of the services which are hazardous to life and property of consumers. The application have a facility to register all the traders and consumer have facility to log the complain against the trade practice.

To protect consumers against unfair trade practices and guarantee that consumers interests shall be given due consideration

c. To ensure that wherever possible, consumers have adequate access to goods and services at competitive prices and

To seek redress against unfair trade practices, restrictive trade practices or any other form of exploitation of consumers by traders.

## 3 Scope of Work

This section provides a brief overview of scope of work for SIP.

This bidding document refer to the successful bidder as a SIP (Software Implementation Partner).

Key areas of scope of work	Summary of Scope of Work
1. Prepare and submit inception report	SIP need to prepare and submit the inception report which include detail project plan and project management process for the approval of employer after signing the agreement. SIP need to follow the Agile methodology and process to develop

Key areas of scope of work	Summary of Scope of Work
	the system. In the Agile methodology, the SIP needs to conduct the change of each sprint two iteration cycle. The Bidder needs to properly price for Agile methodology.
2. Each Sprint	<p>SIP need to perform the following key activities for the finalization of requirements specifications for CAIS:</p> <ol style="list-style-type: none"> <li>As-Is study for functions, services and processes including its interfaces with external entities, and CAA.</li> <li>Business Process Reengineering and definition of to-be processes including the incorporation of best practices. Final deliverable is a To Be Study report which has to be approved by Consumer Affairs Authority .</li> <li>Reengineering of current forms and formats used for CAA.</li> <li>Finalization of Software Requirement Specification.</li> </ol>
3. Supply, installation, customization and commissioning of CAIS Software	<p>SIP need to design, develop or customize and implement the proposed software. The services to be delivered by SIP include:</p> <ol style="list-style-type: none"> <li>Design, development or customization and commissioning of application and system software.</li> <li>Supply, installation, configuration and commissioning of integrated systems for data exchange from and to CAIS with other related IT systems.</li> <li>Preparation of necessary documentation for the solution</li> <li>Implementation of CAIS etc.</li> <li>SIP need to conduct the proper testing of the product until it is acceptable to the Consumer Affairs Authority .</li> </ol>
4. Sizing the IT infrastructure architecture for CAIS implementation	<p>SIP need design and provide the specification of IT infrastructure required for implementation of CAIS. It is to be noted that SIP is responsible for implementation of the product given (LGC) Lanka Government Cloud or Public Cloud.</p>
5. Training of staff at Consumer Affairs Authority Staff and	<p>SIP is required to provide comprehensive training to the concerned staff of Consumer Affairs Authority, and other users on various aspects related to CAIS covering</p> <ul style="list-style-type: none"> <li>Usage and operations for business Users.</li> <li>Administration and maintenance for technical staff at Consumer Affairs Authority .</li> </ul>
6. Data digitization & migration	<p>SIP is required to migrate (including existing digital records) into CAIS for enabling its usage and operations by Consumer Affairs Authority. SIP shall be responsible for ensuring that all the data is made available in digital format in CAIS for successful go-live and operations of CAIS. However, the data</p>

Key areas of scope of work	Summary of Scope of Work
	entry for the transactions post-go-live of CAIS shall be performed by staff of Consumer Affairs Authority .
7. Establishment and operations of help desk	The help desk will be provided by Consumer Affairs Authority
8. Third Party Testing for Security and Functionality	SIP Need to support and fix the issues raised by the third party testing team and Sri Lanka Computer Emergency Readiness Team (Sri Lanka CERT) testing teams. The SIP need to fix the issues within maximum two cycles.
9. Warranty, operations and maintenance support for software	SIP is required to provide warranty, operations and maintenance services for all the systems (software or any other items supplied by SIP to under this project) throughout the contract period and during the five years of warranty period, operations and maintenance phase post go-live of the system (CAIS).
10.	<p>These services will include:</p> <ol style="list-style-type: none"> <li>Ensuring defect free operations of systems and services from SIP.</li> <li>Operations and maintenance support for CAIS application software including, but not limited to, addressing the gaps, errors, functional, integration, security, performance and any other issues related to CAIS software.</li> <li>Warranty for the third party systems provided and implemented for CAIS.</li> <li>Provide support for Changing of the product features.</li> <li>Upgrade to relevant OS, Framework, Database and Web Server version. Every year before the maintainence payment technical feasibility is tested.</li> </ol>

#### 4. Source Code

(a) The “Source Code” shall mean the database structures, dictionaries, definitions, program source files, and any other symbolic representations necessary for the compilation, execution, and subsequent maintenance of the Software (typically, but not exclusively, required for Custom Software).

(b) The ownership of the Source Code (Except the Human Resource Management and Payroll application) shall absolutely be with the Consumer Affairs Authority.

(c) The SIP shall submit the full source code to the Consumer Affairs Authority. The SIP is not be entitled to charge user licenses.

(d) The SIP shall provide the up-to-date, complete, and accurate Source Code with the Framework (Framework Source Code) and all the relevant technical and user-level documentations in original and in-place editable format to the Employer each sprint the development and testing.

(e) The SIP, before handing over the Source Code to the Consumer Affairs Authority (CAA), shall prove CAA that the relevant version (updated) has been included by building and executing the system on hardware other than those used for the production version.

(f) The Employer (CAA) shall have the exclusive intellectual property rights to the bespoke software, forms and the compilations of the CAIS project to which the Consumer Affairs Authority has sovereign rights and nothing herein shall or will be construed or deemed to grant to the SIP any right, title, license, sub-license, proprietary right or other claim against. This clause not valid to the Human Resource Management and Payroll application.

(g) During the development and implementation period, the SIP shall work in the Employer's GitHub Source code deposit tool. The Cost for the GitHub license for the users shall be paid by the Employer. Source Code review will conduct every months.

## 5. Implementation schedule

S.N	Payment Milestone	Time line/ From the Date of Commencement (Months)	Project Milestones to be achieved	Amount to be paid/ (% from Design , Develop and Implementation Cost)
1.	Advance Payment		Submission on Advance Payment Bond	10
2.	Sprint 1	2	Sign-off	5
3.	Sprint 2	2	Sign-off	5
4.	Sprint 3	3	Sign-off	5
5.	Sprint 4	4	OAT/UAT Acceptance report	5
6.	Sprint 5	5	OAT/UAT Acceptance report	5
7.	Sprint 6	6	OAT/UAT Acceptance report	5
8.	Sprint 7	7	OAT/UAT Acceptance report	5
9.	Sprint 8	8	OAT/UAT Acceptance report	5
10.	Sprint 9	9	OAT/UAT	5

S.N	Payment Milestone	Time line/ From the Date of Commencement (Months)	Project Milestones to be achieved	Amount to be paid/ (% from Design , Develop and Implementation Cost)
			Acceptance report	
11.	Sprint 10	9	OAT/UAT Acceptance report	5
12.	Sprint 11	10	OAT/UAT Acceptance report	5
13.	Sprint 12	11	OAT/UAT Acceptance report	5
14.	Sprint 13	12	OAT/UAT Acceptance report	5
15.	Sprint 14	12	OAT/UAT Acceptance report	5
16.	Sprint 15	12	OAT/UAT Acceptance report	10
17.	Operational Acceptance	13	Final OAT/UAT Acceptance report	10
18.	Interfacing with other Systems	13	Final OAT/UAT Acceptance report	Actual Cost
19.	Training	12	Training Pan/Materials/ Completion certificates	100% of the Training Cost
20.	Support and Maintenance	12 - 48		Will be paid quarterly (end of the Quarter)
21.	CR		Completion certificates	Actual Payment will be paid at completion of the each CR

No	Milestones	Sprint Level



<b>1</b>	Design and Development of initial framework align to the Microservice Architecture.	Sprint 1
<b>2</b>	Develop the System Administration, Organization Structure , Document Management, Work Flow and Messaging	Sprint 2
<b>3</b>	Discovery Sessions unplanned and current requirement study	Sprint 3
<b>4</b>	Registration Module	Sprint 4
<b>5</b>	Price Management Module	Sprint 5
<b>6</b>	Complain Management Module	Sprint 6
<b>7</b>	Raid Module	Sprint 7
<b>8</b>	HR and Payroll Module	Sprint 8
<b>9</b>	Warehouse Module	Sprint 9
<b>#</b>	Court System Module	Sprint 10
<b>11</b>	Payment and Collection Module	Sprint 11
<b>12</b>	Consumer Education Module	Sprint 12
<b>13</b>	Monitoring and Audit Module	Sprint 13
<b>14</b>	Interface Development	Sprint 14
<b>15</b>	Report Generation, Dashboards etc.	Sprint 15

## 6. Non-Disclosure Agreement

The SIP need to sign the non disclosure agreement before commencement of the project.  
Employer will need to give the format for ND Agreement to the SIP.

## 5. User

For the all island rollout process Consumer Affairs Authority identified the 1000 users need to train by the SIP.

The application need to conduct the sizing for 1% concurrent users (6000) as in the below table. All the performance will be monitor on this

User Counts	CAIS
Admin Users	25
Core System Users	1000
eService Users/Traders	800,000
<b>Total Users</b>	<b>801,025</b>
20% Concurrent Users	160,205
10% Concurrent users	80,102
5% Concurrent users	40051
1% Concurrent users	8010

## 2. Current Environment

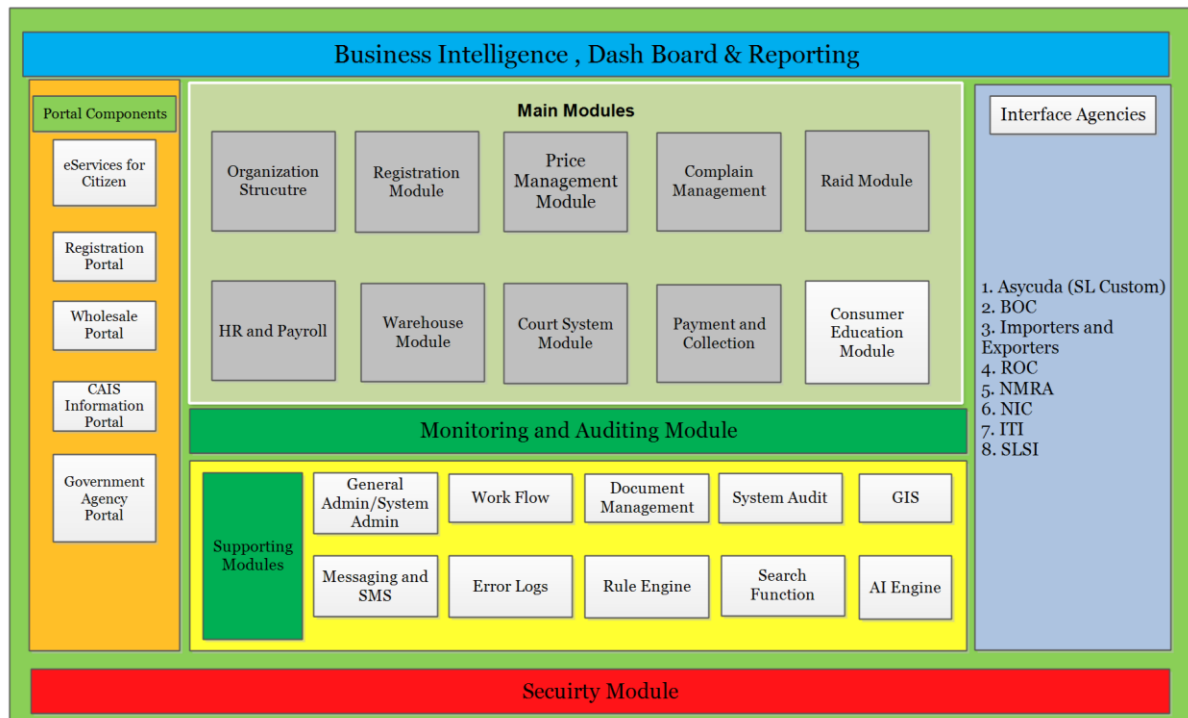
The Head office of Consumer Affairs Authority is located at the Colombo and 25 branch offices are located at all districts under supervision District Secretaries. the following employee statistics relevant to the head office & district offices.

District Offices -Total Employee Cadre -336

	DG	Directors	Deputy/Assist Directors	Junior Manager s	Enforcement Officers	Management Assistants	(PL -3)	(PL-1)	Total
<b>Head Office</b>	1	8	10	18	69	22	12	10	<b>150</b>
<b>District Office</b>									
Ampara			0	0	16	1	0	0	<b>17</b>
Anuradhapura			1	1	16	1	0	1	<b>20</b>
Badulla			0	1	7	0	0	0	<b>8</b>
Batticaloa			0	0	13	1	1	0	<b>15</b>
Colombo (Narahenpita)			0	2	11	0	0	1	<b>14</b>
Galle			1	1	6	1	0	1	<b>10</b>
Gampaha			0	1	8	1	2	0	<b>12</b>
Hambantota			0	1	6	0	0	0	<b>7</b>
Jaffna			0	0	10	0	1	0	<b>11</b>
Kalutara			0	1	9	2	1	0	<b>13</b>
Kandy			1	1	17	2	1	0	<b>22</b>
Kegalle			0	0	15	1	1	1	<b>18</b>
Kilinochchi			0	0	5	0	0	1	<b>6</b>
Kurunegala			0	2	25	2	1	1	<b>31</b>
Mannar			0	0	13	0	0	1	<b>14</b>
Matale			0	1	8	0	0	1	<b>10</b>
Matara			0	1	13	0	0	0	<b>14</b>
Monaragala			0	2	6	0	1	0	<b>9</b>
Mullaitivu			0	0	7	0	0	0	<b>7</b>
Nuwara Eliya			0	1	6	1	1	0	<b>9</b>
Polonnaruwa			0	1	4	1	0	1	<b>7</b>
Puttalam			0	0	21	1	0	1	<b>23</b>
Rathnapura			0	2	7	0	0	0	<b>9</b>
Trincomalee			0	1	10	1	0	0	<b>12</b>
Vavuniya			0	1	16	0	0	1	<b>18</b>
<b>Grand Total</b>	<b>1</b>	<b>8</b>	<b>3</b>	<b>21</b>	<b>275</b>	<b>16</b>	<b>10</b>	<b>11</b>	<b>456</b>

### 3. Desired Future State

#### Functional Overview of CAIS



1. **Essential modules** - the system should comprise the following limited number of modules. Consumer Affairs Authority and other stakeholders should have access to create and update the information when necessary.

### 4. Specific Requirements

#### Business Requirements

This section discusses the broad functional areas identified for CAIS and the detailed requirements for each functional area listed in the table below are discussed in Annexure 3.

The SIP need to conduct the detail requirement gathering and produce software requirement specification to the CAA. Consumer Affairs Authority will sign the document. The SIP need to follow best standard SRS format for requirement gathering.

The product need to develop the best latest technology and Micro service architecture. This Architecture diagram also need to Sign by the CAA. The bidder can mention the detail product architecture in the proposal. The marks given for the proposed architecture.

Table: List of Functional areas of CAIS

No.	Functional Area
1	Organization Chart
2	Registration Module
3	Price Management Module
4	Complain Management Module
5	Raid Module
6	HR and Payroll Module
7	Warehouse Module
8	Court System Module
9	Payment and Collection Module
10	Consumer Education Module
	<b>Monitoring and Evaluation Module</b>
11	Monitoring and Audit Module
	<b>Supporting Module</b>
12	System Admin Module
13	Document Management
14	Work Flow and Messaging
15	Report and Dashboard
16	Rule Engine
17	AI Engine
	<b>Interfacing IT Systems</b>
1	Sri Lanka Custom (Asycuda)
2	BOC (Bank of Ceylon)
3	Importers and Exporters

No.	Functional Area
4	ROC (Registration of Company)
5	NMRA
6	NIC
7	ITI
8	SLSI

## 5. Training for CAIS

SIP must educate and provide training for all persons nominated by the Consumer Affairs Authority including staff and other related stakeholders so as to enable them to test, administer, operate and use CAIS effectively. SIP must prepare a training plan prior to preparing training courses or training staff, in line with the final CAIS design, including specific categories and numbers of personnel to be trained, and training manual (curriculum, courses and delivery methods), schedules and locations. The training program shown in the table below is informational only, representing Consumer Affairs Authority thinking at present. SIP must assess the needs and prepare the training plan that will ensure all staff skills required for CAIS are developed. Training methods may include, but are not to be limited to, presentations by senior instructors, intensive classroom training with delivery of manuals and other technical documents, briefings and orientation sessions, workshop sessions and other on-the-job or on-site training events and opportunities. Bidder must include in the Bid a preliminary training plan detailed descriptions of training courses to be carried out, including:

- Course title
- Learning or training objective
- Class size and composition
- Course duration
- Training sequence (relation to other courses)
- Class outline (subject area, topics and critical learning points)
- Delivery methods
- Locations of course offerings etc.

The training instructors proposed by the SIP should have substantial experience in their specific areas. All instructors will be approved by Consumer Affairs Authority prior to undertaking any training. SIP should replace the training instructors based on the request of Consumer Affairs Authority considering the performance of instructors.

The table below lists the training courses to be conducted by SIP for the identified stakeholders and later sections present an overview of the business need and coverage of each training course.

Table 1: List of training courses for CAIS

Category of training course	List of Training Courses
a. Training courses for system users	1. CAIS usage and operations course for business Users of Consumer Affairs Authority 2.IT systems usage and operations course for employees of Consumer Affairs Authority.
<b>b. Training course for IT back office at Consumer Affairs Authority</b>	<b>CAIS administration and maintenance course for technical staff at Consumer Affairs Authority</b>

## Training course for System users at Consumer Affairs Authority

CAIS will be utilized by Consumer Affairs Authority and by the staff for performing their tasks and activities using CAIS. The training of system users at Consumer Affairs Authority will need to be customized based on the specific functionality offered to the users. Hence, the training content needs to be developed and customized based on the specific users and their allocated functions in CAIS and this training is aimed at supporting the users in administration of their functions using CAIS.

Name of the course	CAIS Usage and Operations course for system users at Consumer Affairs Authority.
Business Need	<p>The training course will equip the participants with good understanding of functionality of CAIS to enable the staff to:</p> <ul style="list-style-type: none"> <li>• Perform day to day monitoring activities using CAIS</li> <li>• To generate required reports using CAIS</li> <li>• Make use of the system in line with the defined operational and security measures etc.</li> </ul>
Target audience	Applicable staff of Consumer Affairs Authority.

## Training methods, tools and languages

Considering various categories and number of users for CAIS, SIP may need to adopt various methods and tools for delivering the training. The table below discusses illustrative training methods, which need to be adopted by CAIS for conducting training for the system users. The training artifacts referred in the table below highlights specific outputs of SIP with respect to training apart from conducting the training sessions. SIP shall provide the training material in all the three languages mentioned in the table below.

Method of training	Brief description	Training artifacts	Languages of training material
Class room training	This approach can be adopted for internal users of Consumer Affairs Authority and	<ul style="list-style-type: none"> <li>• Pre-course reading material</li> <li>• Course content</li> <li>• Participant handouts/handbook</li> <li>• Trainer handbook</li> <li>• Course evaluation tools</li> </ul>	<ul style="list-style-type: none"> <li>• English</li> <li>• Tamil</li> <li>• Sinhala</li> </ul>
Self-learning	This will be useful for both the users at Consumer Affairs Authority. SIP needs to introduce several self-learning methods for enablement of easy learning and adoption of the system by	<ul style="list-style-type: none"> <li>• Training material (PPTs)</li> <li>• CBTs and videos on system operations and usage</li> <li>• Online help in CAIS and user guides etc.</li> </ul>	<ul style="list-style-type: none"> <li>• English</li> <li>• Tamil</li> <li>• Sinhala</li> </ul>

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the Consumer Affairs  
Authority employees, etc.

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### *Target number of users for training courses*

This section captures the illustrative number of target users for each category of training courses identified for CAIS.

Table 2: Illustrative number of participants for training courses

<b>Category of Users</b>	<b>Training Course</b>	<b>Target No. of users for the course</b>
Training courses at operational user level	CAIS Usage and Operations course for system users at Consumer Affairs Authority.	55
<hr/>		
	Audit Users	
Training course for IT/Consumer Affairs Authority	CAIS administration and maintenance course for technical staff at Consumer Affairs Authority	5



## Testing Approach

The primary goal of Acceptance Testing & Certification is to ensure that the CAIS (*including all the systems, deliverables and services*) meets requirements, standards, specifications and performance, by ensuring that the following are associated with clear, quantifiable metrics for accountability:

- Functional requirements
- Technical Requirements
- Infrastructure Requirements
- Availability of Services in the defined locations
- Performance
- Security
- Manageability
- SLA Reporting System
- Documentation (Design, development, configuration, training & administration manuals etc.)
- Data Quality
- Any other as applicable...

As part of acceptance testing, CAA shall review all aspects of development and implementation covering software, hardware and networking including the processes relating to the design of solution architecture, design of systems and sub-systems, coding, testing, business process Description, documentation, version control, change management, security, service-oriented architecture, performance in relation to defined requirements, interoperability, scalability, availability and compliance with all the technical and functional requirements of the RFP and the agreement.

CAA shall establish appropriate processes for notifying SIP of any deviations from defined requirements at the earliest instance after noticing the same to enable SIP to take corrective action. Such an involvement of the QA/Acceptance Testing & Certification Agency, nominated by CAA, shall not, however, absolve SIP of the fundamental responsibility of designing, developing, installing, testing and commissioning the various components of the project to deliver the services in perfect conformity with the SLAs. The CAA party or CAA acceptance testing and certification process shall also extend to the operations and maintenance phase of CAIS and all the services and deliverables of SIP shall be subjected to such audit and certification. Payment to SIP shall be provided only upon successful completion of audit and certification.

### **Technical Requirements**

The technical design of CAIS solution including the solution architecture, solution design, customization approach, source code for software customizations etc. shall be reviewed by an independent competent agency such as ICTA, third party or the Consumer Affairs Authority. IT Department to ensure compliance with the technical standards defined for the project. Any non-compliance/gap identified in the design shall be reported to SIP, which shall be corrected and signed-off before undertaking the next phase of activity in the project implementation.

### **Infrastructure Design**

The bidder needs to submit the technical infrastructure proposal that needs to purchase from CAA. The bidder needs to consider the total infrastructure design for the next five years. The proposed solution needs to consider the high availability and single point of failures.

CAA suggest using the VMWare technology and getting the maximum benefits of the VM technology.

The bidder needs to provide the technical specification for hardware and cannot be specific to any brand name. It has to be a generic specification.

Compliance review shall not absolve SIP from ensuring that the proposed infrastructure meets the SLA requirements.

### **Security Review**

The software customized for CAIS shall be audited by the CAA and third party agency (SLCERT) hired by CAA for security & controls perspective. Such audit shall also include the IT infrastructure deployed for CAIS. Following are the broad activities to be performed by the agency as part of the security review. The security review shall subject the CAIS solution for the following activities:

- Assessment of authentication mechanism provided in the application /components/ modules
- Assessment of data encryption mechanisms implemented for the solution
- Assessment of data access privileges, retention periods and archival mechanisms
- Server and Application security features incorporated etc.
- Backup and Replication procedure.
- Align to the Data Protection act in Sri Lanka
- Align to the eTransaction Act.

### **Performance**

Performance is another key requirement for CAIS and CAA shall review the performance of the deployed solution against certain key parameters defined in SLA. Such parameters include request-response time, workflow processing time, concurrent sessions supported by the system, disaster recovery drill etc. The performance review also includes verification of scalability provisioned in the CAIS solution for catering to the CAA requirements in phases. A comprehensive load testing shall be conducted before system go-live to ensure that system is delivering the expected performance in line with the defined Service Levels Agreement. This test needs to be conducted by the SIP and provide the test result to the CAA.

### **Availability**

The CAIS solution should be designed to remove all single-point failures. Appropriate redundancy shall be built into all the critical components to provide the ability to recover from failures. Proposed hardware need to align for the high availability.

## ***Manageability Review***

### **Project Documentation**

The testing agency shall review the project documents developed by SIP including requirements, design, source code for customization requirements, installation, training and administration manuals, version control etc. Any issues/gaps identified by the testing agency in any of the above areas shall be addressed to the complete satisfaction of CAA.

#### **Data Quality**

The testing agency shall perform the data and document quality assessment for data migrated by SIP to the CAIS. The errors/gaps identified during the data quality assessment shall be addressed by SIP before moving the data into the production environment, which is a key milestone for Go-live of the solution. This need to be addressed in a total period of the contract and the rollout period.

#### **Support Requirements**

The SIP shall provide warranty, operations and maintenance services for CAIS solution including all the software and hardware components from the date of operational acceptance of the solution and such services shall be provided throughout the contract period.

#### **Agile Testing**

1. The SIP can introduce the Automating frequently executed test cases that do not change much with each iteration helps reduce testing time further and increase the quality of software testing.
2. The SIP needs to focus on following testing strategies.
  1. Black box
  2. White box
  3. Functional
  4. Non- functional
  5. UI-UX behaviour
  6. Validation
  7. Security
  8. Requirements Traceability Matrix (RTM)
  9. Boundary value analysis
  10. Decision table
  11. State transition
  12. Equants partition

Following are the Tools that need to be used by the SIP and CAIS . The SIP needs to train and help the CAIS staff use the tools. The SIP can suggest any tool that takes as the best practices. Followig tools will be purchased by the Consumer Affiars Authority.

No	Purpose	Tool
1	Configuration management	Example JIRA (The bidder can also suggest)
2	Defect management	Example JIRA (The bidder can also suggest)
3	Project Management	Example JIRA (The bidder can also suggest)

4	Risk, Issues, assumptions, dependencies management	Example JIRA (The bidder can also suggest)
5	API Testing	Example Postman (The bidder can also suggest)
6	Performance/Load Testing	Example Jmeter (The bidder can also suggest)
7	Test Automation	Example Selenium (The bidder can also suggest)

The Bidder need to purchase 20 JIRA licenses behafe for CAA.

### **QA Design & Execution**

The SIP will analysis the User stories and define the Activity Diagram or Mind map to illustrate the test scenarios to give more visibility.

The SIP leads will do the reviews on both business scenarios and derived test cases to make sure the coverage via lead /architect reviews.

The SIP will also create and maintain the RTM/Product back log to make sure the coverage of the requirements and to see the impacted areas for any future changes so that the SIP would know what to test best on any given time.

### **Test Metrics**

Defect Severity: A classification of software defect (bug) to indicate the degree of negative Impact on the quality of software.

Severity	Description
<b>Critical/Blocker (S1)</b>	There is no workaround for the issue. Total failure of the product or unrecoverable data loss. Security showstoppers are available. Impossible for testing to proceed.
<b>Major (S2)</b>	Affects major functionality or major data. Workaround available but it is not obvious and is difficult.
<b>Minor(S3)</b>	Minor functionality or non- critical data is impacted. Easy and obvious workaround available.
<b>Trivial(S5)</b>	Does not affect functionality or data. Does not need a workaround. Defect causes minimal or unnoticeable problems. Mostly cosmetic errors.

### **Criteria to handover QA release to CAIS**

The SIP need to submit the evidence for following details.

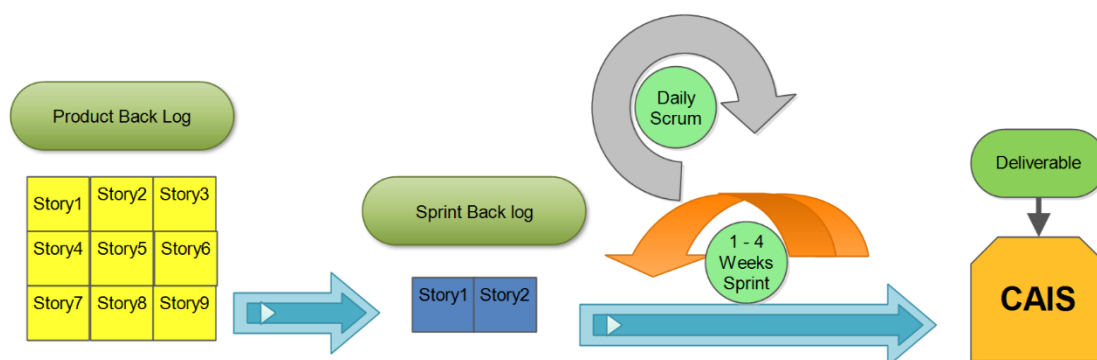
1. The CAA consider release the payment after the SIP achived the Exit Criteria such defects closed under the following criteria

- i. Up to 0 issues of S1- Critical open defects
  - ii. Up to 2 issues to S2- Major open defects
  - iii. Up to 15 issues of S3 & S4- Minor & Trivial defects
2. Test case execution coverage > 95%
3. Test Case pass rate > 85%
4. DSI (Defect Severity Index) < 2.
5. Regression Test completion for final Release
6. QA Release Note is available with defects information and release content.
7. Test Results of the executed tests are available

## Agile Approach and Time Line

Consumer Affairs Authority seriously emphasizes ensuring the sustainability of the CAIS by testing and confirming the functional accuracy of the CAIS through phase out manner using Agile Approach.

SIP should develop the CAIS through Agile approach and provide proper training to practice each output by intended users.



SIP need to propose the best practices in the agile process they are plan to follow. Based on the government structure the bidder need to propose the best process. The SIP need used tools for Agile approach equivalent to JIRA, axosoft.com. The bidder need to price for this tools and price additional 20 licenses for users in Consumer Affairs Authority .

As indicated below the SIP need to implement following steps of the project plan every month in agreement with Consumer Affairs Authority .

No	Steps
1.	The SIP need to identify the product back log and identified the each Sprinter.
2.	SIP Product Owner need to work with Consumer Affairs Authority. The Product Owner and identify the priorities.
3.	Need to conduct the daily stand-up meeting and inform the project progress. Each day the SIP need to produce the Burndown velocity. Every Sprint the SIP need to conduct grooming session.
4.	The SIP need to submit the following deliverables in the each Sprint. <ul style="list-style-type: none"> <li>1. User Stories (Include As-Is and To Be flow charts)</li> <li>2. Test Cases</li> <li>3. Test Results</li> </ul>
5.	The SIP need to submit the following deliverables.

	<ol style="list-style-type: none"> <li>1. Design and Architecture document. (After three Sprint). The Initial design document need to get the approval from CAA before start the initial development.</li> <li>2. Data Dictionary</li> <li>3. User Manuals</li> <li>4. Training Videos in three languages</li> </ol> <p>Based on the strike time line SIP need to accommodate four cycle of changes request by the Consumer Affairs Authority. First cycles will be within the Sprint level and last change cycle will be go live stage. The SIP is responsible to all deliverables until operation acceptance.</p>
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## Resource Structure

The SIP shall inform the CAA, any change to the approved list (change of position, replacement etc.) and obtain approval of the CAA.

- The SIP shall demonstrate that it has the personnel for the key positions that meet the following requirements:
  1. The SIP shall propose a Core Project Management and Execution Team composed of experienced expert/Consultants, who shall assume overall responsibility for the implementation of this project. The Project Manager and all other team members shall have substantial experience in their specific technical and assigned areas. The key staff proposed for the project shall be full time employees of the SIP and need to work in the CAA premises.
  2. The SIP shall provide a detailed staffing plan including resumes for the following key personnel in this addendum.

No	Position	No of People	Full Time/Part Time	Minimum Work Experience (SIP Need to mention the current resource experience)
1	Project Manager	01	Full Time	5 Years
2	Business Analyst	01	Full Time	5 Years
3	Software Architect (Each Sprint, the SA need to certified the standard of the product.) Need to conduct the Code Review.	01	Part Time	10 Years
4	Senior Software Engineers	02	Full Time	5 Years
5	Software Engineers	03	Full Time	3 Years
6	QA Lead	01	Full Time	5 Years
7	QA Engineers	03	Full Time	3 Years
8	Training Expert	01	Part Time	3 Years
9	IT Infrastructure and Implementation Engineer	01	Part Time	2 Years
10	Support / Help Desk Engineer	02	Full Time	1 Year



<b>No</b>	<b>Position</b>	<b>Qualifications</b>
<b>1</b>	Project Manager	Bachelor's degree in Computer or Information Science-related field required; Master's degree preferred.
<b>2</b>	Business Analyst	Minimum of a Bachelor's Degree in Business Administration or related field.
<b>3</b>	Software Architect (Each Sprint, the SA need to certified the standard of the product.) Need to conduct the Code Review.	Bachelor's degree in Computer or Information Science-related field required; Or Have a Master degree in Computer Science or equivalent.
<b>4</b>	Senior Software Engineers	Bachelor's degree in computer science or related field. Programming experience. Broad experience designing, programming, and implementing large information systems. Ability to provide in-depth evaluation and analysis of unique complex technological issues.
<b>5</b>	Software Engineers	Bachelor's degree in Computer science, Information Technology, software engineering or related field.
<b>6</b>	QA Lead	Bachelor's and University Degree in Computer Science, Engineering, Education, Information Systems, Technical, Information Technology, Science, Computer Engineering, Business, Management. Need the Management skills and QA Experience as a QA Lead.
<b>7</b>	QA Engineers	Bachelor's and University Degree in Computer Science, Engineering, Education, Information Systems, Technical, Information Technology, Science, Computer Engineering, Business, Management.
<b>8</b>	Training Expert	Bachelor's degree in Information Systems, Training and Development, or a related field required.
<b>9</b>	IT Infrastructure and Implementation Engineer	Bachelor's and Master's Degree in Computer Science, Technical, Engineering, Education, Computer Engineering, Electrical Engineering, Science, Mathematics, Business, Information Technology.
<b>10</b>	Support / Help Desk Engineer	Bachelor's and Master's Degree in Computer Science, Technical, Engineering, Education, Computer Engineering, Electrical Engineering, Science, Mathematics, Business, Information Technology.

- The SIP shall submit the above table details with the resource's name, qualifications and experiences. All the resources mentioned shall work full time in the Consumer Affairs Authority premises and shall work full time for the CAIS project. If the SIP failed to conduct to put the resources make as low performance of the contract.
- If any resource is changed in the future, the SIP shall inform to the CAA two months prior to such change. The CAA shall check and interview that new resource is having

equal or higher qualifications and experiences to the qualifications and experiences given in the contract and all previous activities and knowledge transfer properly to the new resources. New resources need to get the prior approval from the Consumer Affairs Authority.

### **Roles and Responsibilities**

<b>Role</b>	<b>Responsibilities</b>
<b>Project Manager</b>	<ul style="list-style-type: none"> <li>• Master is responsible for setting up the team, sprint meeting and removes obstacles to progress.</li> <li>• Single Point-of-Contact (SPOC) for the Project Team &amp; Client technical team.</li> <li>• Review all deliverables and plans.</li> <li>• Develops and maintains the Project Plan.</li> <li>• Responsible for the overall quality of the project</li> <li>• Responsible for the achievement of development, performance, schedule, and cost objective</li> <li>• Manage and reviews project risks and where appropriate activates mitigation or contingency measures.</li> <li>• Creates a committed, communicative management environment with an emphasis on technical excellence and quality considerations.</li> <li>• Oversees the project plans and sub-plans to monitor and control project progression.</li> <li>• Conduct Weekly Progress meetings with clients.</li> </ul>
<b>Business Analyst</b>	<ul style="list-style-type: none"> <li>• Scheduling requirement analysis sessions with customer</li> <li>• Investigates and analyzes business problems, perform requirement analysis and Product backlog grooming.</li> <li>• Agree Non-Functional requirements and benchmarks with customer.</li> <li>• Updating the requirement in JIRA</li> <li>• Obtaining customer Sign off for System requirement specification (SRS)</li> <li>• Ensuring user stories meet RTM.</li> <li>• Complete Wireframes and obtain client signoff</li> <li>• User story/Requirements walk-through to on site project team and offshore BA and team.</li> <li>• Liaise closely with the project team during project implementation to ensure clear understanding of project requirements and to facilitate any requirement related clarifications.</li> <li>• Track any changes in change management log.</li> <li>• Lead sprint review meeting and walkthrough to client.</li> <li>• Participate in project UATs with QA team.</li> <li>• User manual creation.</li> <li>• Prepares user training material and conducts user trainings.</li> <li>• Provide inputs for release planning.</li> </ul>
<b>Software Architecture</b>	<ul style="list-style-type: none"> <li>• Design authority for this project.</li> <li>• Develop a solution design document.</li> </ul>

	<ul style="list-style-type: none"> <li>• Review all deliverables and plans.</li> <li>• Conduct user requirement study</li> <li>• Responsible for overall solution implementation design</li> </ul>
<b>Senior Software Engineers / Software Engineers</b>	<ul style="list-style-type: none"> <li>• Participates in design of technical solution, in accordance with technical standards.</li> <li>• Develops and unit tests software.</li> <li>• Perform peer reviews.</li> <li>• Developer integration testing</li> <li>• Prepare API documentation</li> <li>• Prepare developer release note.</li> <li>• Roll back scripts (If applicable)</li> <li>• Provide Root Cause Analysis for the bugs.</li> </ul>
<b>QA Lead</b>	<ul style="list-style-type: none"> <li>• Responsible for ensuring the quality standards are being followed.</li> <li>• Participates and lead in the project execution level activities.</li> <li>• Acts as the first escalation point for all testing related issues.</li> <li>• Estimating work for QA tasks</li> <li>• Assigns tasks to test team members.</li> <li>• Develops test plan, compatibility matrix.</li> <li>• Manages deliverables of the test engineers.</li> <li>• Tracks and reports on testing activities.</li> <li>• Creation/Review test automation strategy.</li> <li>• Provide inputs for performance test strategy.</li> <li>• Sharing status update on QA automation tasks.</li> <li>• Review RTM on invalid defects and UAT defects.</li> <li>• Review UAT Test cases, Release note.</li> <li>• Conducting UAT and Sprint review meetings with BA.</li> <li>• Provide inputs for project release planning.</li> <li>• Closing user stories in JIRA.</li> <li>• Prepare test summary report.</li> </ul>
<b>QA Engineers</b>	<ul style="list-style-type: none"> <li>• Help QA leadership with required reports / Data.</li> <li>• Assign Test tasks / Peer reviews to the team.</li> <li>• Prepares and updates test cases document to cover various test types and test scenarios.</li> <li>• Executes test cases and Peer reviews.</li> <li>• Publishes test execution results.</li> <li>• Logs QA defects and UAT defects in bug triage tracking sheet</li> <li>• Provide Root Cause Analysis for the bugs.</li> <li>• Prepare and share test data with development team.</li> <li>• API level testing</li> </ul>
<b>IT Infrastructure and Implementation Engineer</b>	<ul style="list-style-type: none"> <li>• Assistance in development of policies and procedures relevant to the support and maintenance of the network (LAN, WAN, VPN), network equipment, servers etc.</li> <li>• To monitor the network operation and report issues related to network management such as communication failure, traffic mismanagement, peak time load etc.</li> <li>• Understand and identify the exact cause of network/communication failure using the tools deployed</li> </ul>

	<ul style="list-style-type: none"> <li>• Coordinate with different stakeholders to resolve issue related to CAIS Infrastructure.</li> <li>• Responsible to analyze the different logs of the firewalls, other security devices etc. deployed to protect the network and recommend necessary improvement measures</li> <li>• Review and approve the additional network infrastructure requirement.</li> <li>• Monitor the service provider/3<sup>rd</sup> party vendor performance by monitoring the network uptime, security, performance issues and other related services viz-a-viz agreed SLAs</li> <li>• Recommend necessary actions to minimize non-compliance related to network uptime, security, CAIS system performance etc.</li> <li>• Need to have a good knowledge in Web server configuration and database administration knowledge.</li> </ul>
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## High Level Project Plan

### Key Notes for above Table:

- a. **“Go-live”** is the date on which the SIP and all the acceptance tests are successfully concluded to the satisfaction of Consumer Affairs Authority. After the detail User Acceptance testing project starts the warranty period. As in the Agile approach each successful iteration will be deploy and provide the training to the end users. SIP need to plan iteration rollout approach meantime.
- b. All the documents/manuals as referred above shall be kept up to date by SIP based on the changes to the system functionality performed during the contract period. The revision history shall be maintained by SIP for all such changes. It may be noted that the timeline for each milestone shown in the table above will be enforced independently, even though some of them are inter-dependent. Hence SIP will have to be extremely careful in establishing an excellent project management set-up.
- c. The payment during O & M phase is also subject to successful demonstration of SLA measurement process/reports for the SLA’s indicated in annexure.
- d. It is to be noted that upon completion of Go-live and at the end of each quarter of operations and maintenance support, SIP is required to submit all the updated system design documents, specifications, source code, application deployment files, user manuals, administration manuals, training manuals, software change logs and all other applicable deliverables as listed in this section and payment of fees related to these mile stones is subject to receipt of such deliverables.

## Acceptance Testing Approach

The primary goal of Acceptance Testing & Certification is to ensure that the CAIS (*including all the systems, deliverables and services*) meets requirements, standards, specifications and performance, by ensuring that the following are associated with clear, quantifiable metrics for accountability:

- Functional requirements
- Technical Requirements
- Infrastructure Requirements
- Availability of Services in the defined locations
- Performance
- Security
- Manageability
- SLA Reporting System
- Documentation (Design, development, configuration, training & administration manuals etc.)
- Data Quality
- Any other as applicable...

As part of acceptance testing, Consumer Affairs Authority shall review all aspects of development and implementation covering software, hardware and networking including the processes relating to the design of solution architecture, design of systems and sub-systems, coding, testing, business process description, documentation, version control, change management, security, service oriented architecture, performance in relation to defined requirements, interoperability, scalability, availability and compliance with all the technical and functional requirements of the RFP and the agreement.

Consumer Affairs Authority shall establish appropriate processes for notifying SIP of any deviations from defined requirements at the earliest instance after noticing the same to enable SIP to take corrective action. Such an involvement of the QA/Acceptance Testing & Certification agency, nominated by Consumer Affairs Authority, shall not, however, absolve SIP of the fundamental responsibility of designing, developing, installing, testing and commissioning the various components of the project to deliver the services in perfect conformity with the SLAs. Third party or Consumer Affairs Authority acceptance testing and certification process shall also extend to operations and maintenance phase of CAIS and all the services and deliverables of SIP shall be subjected to such audit and certification. Payment to SIP shall be provided only upon successful completion of audit and certification.

#### **a. Technical Requirements**

The technical design of CAIS solution including the solution architecture, solution design, customization approach, source code for software customizations etc. shall be reviewed by an independent competent agency such as ICTA or Consumer Affairs Authority IT Department to ensure compliance with the technical standards defined for the project. Any non-compliance/gap identified in the design shall be reported to SIP, which shall be corrected and signed-off prior to undertaking the next phase of activity in the project implementation.

- b. **Infrastructure Design** The bidder need to submit the technical infrastructure proposal that need to purchase from Consumer Affairs Authority. The bidder need to consider the total infrastructure design for next five years. The proposed solution need to consider the high availability and single point of failures.

Consumer Affairs Authority suggest to use the VMWare technology and get the maximum benefits of the VM technology.

The bidder need to provide the all technical specification for hardware and cannot be specific to any brand name. It has to be a generic specification.

Compliance review shall not absolve SIP from ensuring that proposed infrastructure meets the SLA requirements.

#### ***c. Security Review***

The software customized for CAIS shall be audited by a third party agency (SLCERT) hired by Consumer Affairs Authority for security & controls perspective. Such audit shall also include the IT infrastructure deployed for CAIS. Following are the broad activities to be performed by the agency as part of security review. The security review shall subject the CAIS solution for the following activities:

- Assessment of authentication mechanism provided in the application /components/ modules
- Assessment of data encryption mechanisms implemented for the solution
- Assessment of data access privileges, retention periods and archival mechanisms
- Server and Application security features incorporated etc.
- Backup and Replication procedure

#### ***d. Performance***

Performance is another key requirement for CAIS and Consumer Affairs Authority shall review the performance of the deployed solution against certain key parameters defined in SLA. Such parameters include request-response time, work-flow processing time, concurrent sessions supported by the system, disaster recovery drill etc. The performance review also includes verification of scalability provisioned in the CAIS solution for catering to the Consumer Affairs Authority requirements in phases. A comprehensive load testing shall be conducted prior to system go-live to ensure that system is delivering the expected performance in line with the defined Service Levels Agreement. This tested need to be conducted by the SIP and provide the test result to the Consumer Affairs Authority.

#### ***e. Availability***

CAIS solution should be designed to remove all single point failures. Appropriate redundancy shall be built into all the critical components to provide the ability to recover from failures. Proposed hardware need to align for the high availability.

### **Manageability Review**

#### ***f. Project Documentation***

The testing agency shall review the project documents developed by SIP including requirements, design, source code for customization requirements, installation, training and administration manuals, version control etc. Any issues/gaps identified by the testing agency in any of the above areas, shall be addressed to the complete satisfaction of Consumer Affairs Authority.

#### ***g. Data Quality***

The testing agency shall perform the data and document quality assessment for data migrated by SIP to the CAIS. The errors/gaps identified during the data quality assessment shall be addressed by SIP before moving the data into production environment, which is a key milestone for Go-live of the solution. This need to be addressed in total period of the contract and the rollout time period.

### **Support Requirements**

The SIP shall provide warranty, operations and maintenance services for CAIS solution including all the software and hardware components from the date of operational acceptance of the solution and such services shall be provided throughout the contract period.

## Operations & Maintenance of Application & System Software

The following outlines the overview of warranty, operations and maintenance services to be provided by SIP for CAIS application and related system software implemented by SIP. The warranty, operations and maintenance for application and system software includes, but not limited to, ensuring defect free operation of the systems, systems monitoring, troubleshooting & addressing the functionality, availability & performance issues, implementing the system configuration of the product, change requests etc. The SIP shall keep the application software in good working order; perform changes and upgrades to applications as requested by the Consumer Affairs Authority . The following is the broad scope for maintenance and support functions with regard to the software.

Table 3: Scope of support services for application and system software

Requirement	Scope
Compliance to SLA	The SIP shall ensure compliance to uptime and performance requirements of CAIS solution as indicated in the performance requirements ( <i>refer to annexure</i> ) and any upgrades/major changes to the software shall be planned accordingly by SIP for ensuring the SLA requirements.
Application Software Maintenance	<p>The SIP shall address all the errors/bugs/gaps in the functionality offered by CAIS solution at no additional cost during the operations &amp; maintenance period.</p> <p>For performing of any functional changes to system, which deviates from the signed-off Functional Requirements/System Requirements, a separate Change Control Note (CCN) shall be prepared by SIP and effort &amp; cost estimates shall be mutually agreed between SIP and Consumer Affairs Authority at the man-month cost quoted by SIP for software development/changes in its commercial quote. This cost per man-month shall be unchanged during the contract period.</p> <p>Any changes/upgrades to the software performed during the operations &amp; maintenance phase shall be subjected to the comprehensive &amp; integrated testing by SIP to ensure that the changes implemented in the system meets the desired and specified requirements of the Consumer Affairs Authority and doesn't impact any other function of the system.</p>
Database Management	Performance management of the database systems and servers set up for CAIS including continuous monitoring of the performance of the system, ensuring system performance in line with the defined SLA etc. SIP need to maintain the Database, Web servers and other relevant softwares.
Problem identification and Resolution	Identification and resolution of application problems (e.g. system malfunctions, performance problems and data corruption etc.)
Software Change & Version Control	<p>All planned changes to application systems shall be coordinated within established Change Control processes and release management processes to ensure that:</p> <ol style="list-style-type: none"> <li>Appropriate communication on change required has taken place</li> <li>Proper approvals have been received</li> <li>Schedules have been adjusted to minimize impact on the production environment</li> </ol> <p>The SIP shall define the Software Change Management &amp; Version control process and obtain approval for the same from Consumer Affairs Authority</p>



<b>Requirement</b>	<b>Scope</b>
	. For any changes to the software, SIP has to prepare detailed documentation including proposed changes, impact to the system in terms of functional outcomes/additional features added to the system etc. SIP is required to obtain approval from Consumer Affairs Authority for all the proposed changes before implementation of the same into production environment and such documentation is subject to review at the end of each quarter of operations & maintenance support.
Maintain configuration information	Maintain version control and configuration information for application software and any system documentation.
Maintain System documentation	<p>Maintain and update documentation of the software system to ensure that:</p> <ol style="list-style-type: none"> <li>Source code maintain in CAA GITHUB.</li> <li>Functional specifications are documented</li> <li>Application documentation is updated to reflect on-going maintenance and enhancements including User Stories, in accordance with the defined standards.</li> <li>User manuals &amp; training manuals are updated to reflect on-going changes/enhancements</li> <li>Standard practices are adopted and followed in respect of version control and management.</li> </ol>



## Business Requirements for CAIS

Table below discusses the functionality to be provided by CAIS. This is the high level requirement and SIP need to prepare the detail specification for given high level requirements.

1	2	3	4	5
No	High level Description of Functionality	<i>Technical Specifications and Standards</i>		
		Purchaser's Requirements	<i>Bidder's Offer</i>	
		<i>Details</i>	<i>Y/N</i>	<i>Remarks</i>
	<b>Organization Structure of Consumer Affairs</b>			
1		The system should support the preparation of government organization structure which includes central, provincial, district, divisional and Gram Niladari as well as other relevant public enterprises and institutions.		
2		The system should have a facility to create a Geographical structure base on the following structure. Each Consumer Affairs location or Reginal office need to enter in the system. <ul style="list-style-type: none"> <li>• National</li> <li>• Provincial</li> <li>• District</li> <li>• Divisional secretarial</li> <li>• GN divisions</li> <li>• City (MC,UC,PS)</li> </ul>		
	<b>Defining Users and Access Rights (Users &amp; Groups)</b>			
	<b>Users &amp; Groups</b>			

3		Ability to define users in the system – allocating unique user identification (e.g. user name & password) to each person authorized to access the system.		
4		System Need to capture basic user information detail such as user name, Address contact details. The bidder need to align to the LiFE standard defined by the ICTA.		
5		Ability to define seniority for the user grades. Designation wise number scheme.		
6		The Sip Need to align to the LiFE Standers (Lanka Interoperability framework) guideline to crate the user information.		
7		System should have facility to enter Unique User id (NIC), Name Details, Select the Organization from Consumer Affairs Organization Structure, Departments, Position, Phone details, Email, Comment, Security Image (Captcha).		
8		The bidder need to have the facility for OTP(One time password) and Security Question of the users.		
	<b>Functional access rights</b>			
9		Ability to assign user access rights to different system functions / screens / menus separately.		
10		Ability to assign user read only function.		
	<b>User rights management</b>			
11		To define application administrator role, allowing user right assignment function to be part of the application administrators' assigned rights.		
12		Ability to identify the approval received when a creating user (e.g. head who approved the user creation & access rights given)		
13		Ability to have separate functions requiring approval from different persons (functional / Project Management units) when user rights are allocated.		
	<b>Temporary allocation of access rights</b>			

14		For any user, facility to assign the user rights assigned to his/her user account to another user temporarily within the system. (This should allow users to temporarily assign his/her work to another while away from office). Temporary period the Work flow also need to change based on the requirement.		
15		Ability to define a time period for the validity of temporary rights allocation.		
	<b>Information Integrity</b>			
16		System should ensure only the person who has been assigned with the user ID can perform tasks with that user ID, and that no other person (or system itself) can perform tasks under that user ID.		
	<b>Audit Logs</b>			
17		The system should maintain audit logs of all additions, modifications and deletion made to all data stored in the system.		
18		The system should maintain audit logs of users viewing sensitive (based on classification) data in the system. Provides information about the recent changes made to the corresponding project. Identifies the user who performed the changes and the date/time when the modifications were made.		
19		The ability to modify & remove the audit logs / audit log entries should be restricted to a combination of users (e.g. System administrator), and should not be granted to any single user.		
		Audit logs must be part of the daily backup of the system.		
	<b>Password setup</b>			
20		Facility to define password expiry period as a global parameter and user group level parameter.		
21		Facility to define minimum and maximum password lengths.		
22		System should have a facility have the Two way authentication and Capatch for relevant authentications.		
23		Facility to define alpha numeric requirements in the password should be available.		

24		Facility to define password history (restriction on reusing the password)		
25		Facility to define maximum unsuccessful login attempts for locking the user IDs.		
26		The application have a facility to enter CAPTCHA and other security mechanism to protect any security issues.		
		Ability to change the password by the users at their discretion without the involvement of systems administrators.		
	<b>Security Administration &amp; Monitoring</b>			
27		The system should have the facility to disable user Ids and record details.		
	<b>Security Reports</b>			
28		The system should automatically generate exception reports on overriding access level at user profile level.		
29		Ability to define audit trails/exception reports for identified events. These should essentially capture details such as the computer name, user, date and time together with the activity done.		
	<b>User access verification / auditing</b>			
30		Ability to identify the user who are allowed read / create / modify access to any given function (e.g. user rights matrix)		
31		Ability to identify all the functions (tasks) for which a given user has rights assigned to.		
	<b>Application Administration</b>			
32		Ability to post system-wide messages/memos for users to view on login. Facility to change the messages/memos from time to time.		
33		Whenever there are online authorizations, the authorizing user should be able to view the data entry user, modified user (if any), other authorizing user.		
	<b>Classification of information</b>			
34		Ability to have documents classified as internal in the system, which would not be provided to outside parties.		

35		Ability to have documents classified as confidential in the system, which would not be made available to other persons other than the owner / group of owners of the documents and any person approved by the owner of the file.		
36		Need a prevention method to copy the document from another sources, Picture or scanning.		
	<b>File uploads</b>			
37		The system should have facilities to upload information provided in physical storage media		
38		The system should have facilities to upload information from common proprietary application formats, such as Microsoft Office file formats, IBM Lotus formats, etc. and open file formats such as Unicode text files, ASCII text files, HTML, pdf , Open Standardised.		
39		System shall facilitate definition of approval process for all the applicable transactions based on the applicable rules and regulations		
40		System shall facilitate online view of graphical approval process display to facilitate quick review/assessment of the workflow configured in the system.		
41		System shall facilitate defining the timelines for completion of a given activity in the workflow and enable time tracking based escalation in case of delays at any stage of approval.		
42		System shall facilitate generation of reminders for pending tasks or tasks which are approaching the defined deadlines.		
43		The system should allow the user to set reminders for a task in which case an auto generated mail should be sent on the specified date.		
44		If a task is not completed within the specified time, the system should allow an escalation to the next level in the hierarchy.		

45		At any stage where the decision is in deviation from that suggested by the system, the system shall capture the reasons for deviation and record the same in the appropriate MIS reports.		
46		During movement from one page of a form to another page or from one form to another form, the system should automatically save the inputs provided by the user so that they are not lost due to browsing between forms.		
47		System should facilitate to create and update a Standard Template Library and attaching the respective templates with the associated transactions.		
48		All the attachment must scan the virus before upload the document. If the document has a virus issue then the user get the message.		
49		For standard forms, the system should facilitate definition of mandatory and non-mandatory fields of the form.		
50		During first time login of the registered user, system should mandate the user to change the password. Need to capture the question list to verify the user.		
51		System shall facilitate powerful search engine for conducting various search functions.		
	<b>Search Engine</b>			
52		The System Should have a feasibility to define the fast search engine base on different criteria.		
53		The system has a facility to search different fields in the database and wildcard searching.		
54		The Searching facility need to link with all the main forms in application.		
	<b>Definition of Workflow</b>			



55		The system has facility to define standard workflow for all category related activities, including: This section lists some key functions in the system and these requirements need to analysis in detail by the Software implementation partner.		
		<b>Assigning User Rights in Workflow</b>		
56		Ability to assign selected users with authority to perform tasks identified in the workflow definition.		
57		Ability to assign selected user groups with authority to perform tasks identified in workflow definition.		
		<b>Workflow Definition</b>		
58		For each standard procedure defined in workflow, ability to define initiation points – identifying the users who can initiate the procedure.		
59		For each standard procedure defined in workflow, ability to define multiple sub tasks (e.g. fill in direction form, 1st approval of direction form, 2nd approval of direction form, print direction, issue direction, etc.)		
60		For each standard procedure defined in workflow, ability to define multiple sub-tasks (e.g. fill-in direction form, 1 <sup>st</sup> approval of direction form, 2 <sup>nd</sup> approval of direction form, print direction, issue direction, etc.)		
61		For each standard procedure defined in workflow, ability to define multiple sub tasks (e.g. fill in direction form, 1st approval of direction form, 2nd approval of direction form, print direction, issue direction, etc.)		
62		For each sub task defined in workflow, ability to define the functional group of the user who can perform the task		
63		Ability to define order of workflow in the system, by defining predecessor and successor tasks for each task.		

64		<p>The system to capture for each task of a workflow process, with the minimum of the following:</p> <ul style="list-style-type: none"> <li>• The user who performed a task</li> <li>• Time and date of performing the task</li> <li>• Subsequent action taken / status of the task</li> </ul>		
65		Ability to specify deadlines and priorities, determine whether tasks have been accepted, rejected, delegated, or completed, and build automated context trails that link objects to actions as they are performed.		
66		Users shall be able to query and track task assignments and be notified if scheduled deadlines are not met. The system shall be configurable to automatically redirect tasks.		
	<b>Dash Board</b>			
67		Shows how many tasks you have completed and how many you have left. If the remaining tasks line is steeper, then your project may be late.		
68		Shows how much work you have completed and how much you have left. If the remaining cumulative work line is steeper, then the project may be late. Is your baseline zero?		
69		<p>Need to show the following information.</p> <p>Current cost incurred</p> <p>Remaining Cost</p> <p>% Percentage of Complete</p>		
70		<p>The System should have a facility to list of all dashboard previously saved will appear.</p> <p>Select a report to add to a dashboard and drag-and-drop it onto the main screen.</p>		

71		Dashboard module have a facility to customize any dashboard created, i.e. you can rename the dashboard, save the changes made to it, save a copy of the dashboard, delete a dashboard, and/or discard the changes made.		
72		The list can create and execute ad-hoc queries on projects data, and acquire results in the form of a data list.		
73		The defined tool equipped with a powerful chart designer that provides all necessary tools to create charts for professionally looking presentations and reports. A user-friendly interface, great number of visual effects and pre-defined chart types, flexible chart components selection, and on-screen real-time chart visualization make using the chart designer an easy and delightful experience.		
74		The tool can be defined different type of charts in the system. Such as Bar Chart, Column Chart, 3D Bar chart, Stacked Bar Chart. Pie Chart, etc.		
75		<p>It is need to show the following information.</p> <ul style="list-style-type: none"> <li>• Data Label - shows the actual values of each chart cell.</li> <li>• Legend - explains the categories and data series displayed on the chart.</li> <li>• Pattern - allows choosing a pattern-filled chart for black and white printing.</li> </ul> <p>Colouring Option - allows defining whether the chart should be displayed in multiple colours or in one of the colours available.</p>		
	<b>Reporting requirements</b>			
		The SIP needs get the detail report requirements of each modules and get the CAA approval through User Stories.		
		The SIP needs to prepare maximum 50 number of reports the need for Government Procurement Process.		
		All these reports need to in three languages.		

		Base on the different parameters and filtering criteria these report need to generated.		
	<b>Non Functional Requirement</b>			
		<b>Safety, Accessibility and Availability</b>		
76		Admin module for user, group, authentication, authorization, permission and data management should be a separate module where administrators can perform system-wide tasks with minimum amount of effort. (A protocol to be identified for this authorization process under the supervision of the relevant officer of Consumer Affairs Authority).		
77		Industry standard security/development measures must be taken while developing, deploying and running the system. SIP need to flow all coding and testing standards.		
78		The system should be developed to ensure “High Availability” to remain the system available all the time.		
79		The Proposed Hardware need to be align to the Virtualized Infrastructure.		
		<b>Audit Facilities</b>		
80		Wherever applicable, an audit trail of all activities must be maintained. On a service or operation being initiated, the system should log the event, creating a basic ‘audit log entry’.		
81		It should not be possible for the operation to be executed without the log entry being made.		
82		The information recorded in the audit trail depends on the type of activity which takes place. Each service would be responsible for logging detailed information.		

		<b>Performance and compatibility</b>		
83		The solution must meet the performance indicators set by the ministry or the government's IT regulatory authority. SIP need to align to the give SLA.		
84		The solution should be a web based solution that is capable of running all top and popular web browsers.		
85		System should be accessible through mobile phones to obtain information to be used at discussions, meetings or at the field for verification purposes.		
		In addition it should provide facility to upload any photo , video or audio files taken by a mobile phone at the field (on-site evidence).		
		<b>Backup and Contingency Planning</b>		
86		Automatic Backups daily, weekly and monthly should be taken. All the backup procedures and backups need to be tested regularly for restoration.		
87		The bidder need to explain the replication process in the proposal.		
		<b>User-friendliness</b>		
88		The SIP need to design the interface in very user friendly manner. Use minimum number of clicks and event to conduct the transactions.		
89		The SIP need to prepare the UI/UX standards and get the approval from the Employer.		
		<b>Technology and Maintenance</b>		
90		The system should be developed using the most advanced, modern technology which ensures it's sustainability in terms of ability to improve the system in future (for improved versions) without complete replacement of the existing technology.		
91		The SIP need to use latest framework and database versions.		

92		Within the maintains period the SIP need to update the system to latest framework, Operating System, Database and Web Servers released in the market.		
93		SIP need to follow the Micro service Architecture for the Application development.		
94		Micro service Architecture do not need to used for HR & Payroll, Help Desk Modules. The Bidder can purchase the best product in the market and deploy in the Consumer Affairs Authorities.		
	<b>Document Management</b>			
95		<p>The system should capture Notes and Attachments to provide additional comments / notes about the project; attach project documents, monitoring reports and other relevant documentation.</p> <p>The following information need to capture in the basic document management system.</p> <ol style="list-style-type: none"> <li>1. Attachment</li> <li>2. Title</li> <li>3. Type (Example Appraisal Report, Feasibility Report, Image File, Loan Agreement, Project File, Procurement Files, Project completion reports, Evaluation reports)</li> <li>4. Folders</li> <li>5. Sub Folders</li> <li>6. Descriptions</li> </ol>		
96		The system have facility to enter different tags to the uploaded documents.		
97		The uploaded document can be MS word, Excell, PDF, JPEG and etc.		
98		The uploaded document can be classified as security restriction and can be view only the privilege stakeholders.		
99		Any document add, modify or view will be log in the audit log. The system need to capture the username, IP Address, MAC Address, Document View, Date and Time.		

100		The system should have facility to search the document base on the Tag enter into the system. All the document need to list out base on the search criteria.		
101		The document can be send through the workflow for approval, recommendation and other information.		
	<b>Non Functional Requirement</b>			
		<b>Safety, Accessibility and Availability</b>		
102		Admin module for user, group, authentication, authorization, permission and data management should be a separate module where administrators can perform system-wide tasks with minimum amount of effort. (A protocol to be identified for this authorization process under the supervision of the relevant officer of Consumer Affairs Authority).		
103		Industry standard security/development measures must be taken while developing, deploying and running the system. SIP need to flow all coding and testing standards.		
104		The system should be developed to ensure “High Availability” to remain the system available all the time.		
105		The Proposed Hardware need to be align to the Virtualized Infrastructure and need to use the Docker technology.		
		<b>Audit Facilities</b>		
106		Wherever applicable, an audit trail of all activities must be maintained. On a service or operation being initiated, the system should log the event, creating a basic ‘audit log entry’.		
107		It should not be possible for the operation to be executed without the log entry being made.		
108		The information recorded in the audit trail depends on the type of activity which takes place. Each service would be responsible for logging detailed information.		
		<b>Performance and compatibility</b>		

109		The solution must meet the performance indicators set by the ministry or the government's IT regulatory authority. SIP need to align to the give SLA.		
110		The solution should be a web based solution that is capable of running all top and popular web browsers.		
111		System should be accessible through mobile phones to obtain information to be used at discussions, meetings or at the field for verification purposes.		
112		In addition it should provide facility to upload any photo , video or audio files taken by a mobile phone at the field (on-site evidence).		
		<b>Backup and Contingency Planning</b>		
113		Automatic Backups daily, weekly and monthly should be taken. All the backup procedures and backups need to be tested regularly for restoration.		
114		The bidder need to explain the replication process in the proposal.		
		<b>User-friendliness</b>		
115		The SIP need to design the interface in very user friendly manner. Use minimum number of clicks and event to conduct the transactions.		
		<b>Technology and Maintenance</b>		
116		The system should be developed using the most advanced, modern technology which ensures it's sustainability in terms of ability to improve the system in future (for improved versions) without complete replacement of the existing technology.		
117		The SIP need to use latest framework and database versions.		



118		Within the maintains period the SIP need to update the system to latest framework, Operating System, Database and Web Servers released in the market.		
	<b>Human Resource Management System and Payroll</b>			
	<b>Employee information management</b>			
119		The System should have a facility to maintain all employee related information including different types of personal information, detailed qualifications and work experience etc.		
120		For effectively and efficiently access and manage detailed information on each employee. Eliminating the requirement of a personal file to be maintained manually under each employee completely.		
121		An authorized administrative user should be able to define all the information required to capture employee details as well as other modules in the system.		
122		Users should have access to view their information/profile through the system.		
123		System should capture milestones on birthdays, passport/visa renewal, employee service confirmation and prior retirement etc. Should alert to the relevant HR Officer and well as the relevant users. Reports should able to generate based on the data captured through the module. (Age Analysis Report, Birthday List, Employee Profile Report, Service Analysis Report etc.)		
	<b>Employee life cycle management</b>			

124		System should allow to keep a track of the movement of an employee within the organization clearly tracking the progressions of each individual's career.		
125		System should allow to keep a track of the movement of an employee within the organization tracking the progressions of each individual's career. Identify, track, manage and control the many changes and phases of the employee life cycle process effectively and efficiently. Promotions, designation changes, transfers, salary increments or even demotions should simply be handled through the system		
126		Should be a clear track of transfers, promotions, demotions, increments and decrements of an employee and should have a facility to generate the report at any time.		
	Organizational Structure			
127		Create detailed structures for all business types with records, charts and reports to better understand the reporting hierarchies and responsibilities.		
128		This module should create detailed structures for all business types, to support better strategic decisions and manage all employee related movements within the organization.		
129		Should be a graphical representation of company and reporting hierarchy.		
130	<b>Time and attendance</b>	Should have better monitoring system of employee time and attendance, tracking and data collection with accurate time capturing through attendance devices.		

131		Should have better monitoring system of employee attendance and maintaining discipline in work hours since it is an essential aspect of organizational productivity. The Time and Attendance module should simplify the tedious tasks involved with monitoring employee time and attendance, Tracking and data collection.		
132		System should help to control costs, minimize compliance risk, and improve the workforce productivity with consistent, effective and reliable tracking of employee attendance.		
133		Supervisors should able to view and monitor attendance patterns of geographically dispersed employees.		
134		Popups/notifications should be sent automatically regarding employee delays or any other issues related to attendance.		
135		Should have the ability to customize the attendance policies according to the organizational requirements		
136	<b>Absence Management</b>	System should help to track the multiple leave types and provide a quick, error free way to organize, apply and approve leave throughout the organization with timely alerts.		
137		System should help to track the multiple leave types, manage how each should be allocated, applied and even used since unexpected or unaccounted absences create disruptions to the workflow of an organization, causing sudden interruptions in achieving the expected productivity.		
138		System should provide a quick, error free and effortless way to organize, apply and approve leave throughout the organization.		
139		System should avoid misconduct or violations of organizational attendance policies.		

140		An authorized user or supervisor should able to perform leave related activities such as applying leave/short leave, cancelling applied leave, viewing leave details and viewing leave statistics on behalf of his / her Subordinates		
	<b>Payroll Management</b>			
141		Should provide ease in conducting all necessary functionalities in payroll management whilst facilitating the process, based on information captured from the other modules automatically. Should be highly accurate with comprehensive validation procedures.		
142		To compensation process, this module should provide ease in conducting all necessary functionalities with higher efficiency and reliability. From generating pay slips, payroll reports, increments, can be handled through one single platform.		
143		The system should facilitate the payments to be processed based on information captured from the Attendance and Absence Management modules for overtime, no pay and other attendance-based incentives automatically.		
144		<ul style="list-style-type: none"> <li>• Should be highly accurate and speed up the stages in the process through automated and predefined logics, calculations and should have the features and comprehensive validation procedures to avoid human errors on data insertions from occurring.</li> </ul>		
145		<ul style="list-style-type: none"> <li>• Should have an option for bulk upload method of pay items via excel spreadsheets.</li> </ul>		
146		<ul style="list-style-type: none"> <li>• Option of pay slip widget on Self Service portal to print/view slips</li> </ul>		

147		• Option of Information security via encryption and audit logs		
148		• Facility to export dashboards and data tables to Microsoft Excel file format for further analysis		
149	<b>Report Navigator</b>	• This module should consist of a host of reports that are compiled, capturing information from the modules available within the system.		
150		• Reports can be arranged in an easily accessible manner that will ease information sourcing.		
151		• Authorized users should be able to generate reports required for decision making purposes and assign them to specific user groups that will benefit from the available information.		
152		• This should decrease time and efforts exhausted on information mining and report creation.		
	<b>Registration Module</b>			
		The system should have a facility to online Registration (web portal, mobile app), Type of ownership, business category, Nature of business, system alerts (SMS, Email), No. of branches and addresses, No. of warehouse and addresses, etc....		
		System should have the facility to register all the different category of Traders in the System.		
		The traders have their own user ID and Password and they can edit the basic profile information suc location, Branches, Business Types.		
		All these changes need to go through the Workflow and get the approval from CAA. CAA will check the relevant documents of trader and give the approval for registration.		
		System should have facility to active and Inactive the Traders.		
		All the Inquires will be link to the registered Traders Registration Number. Registration Number is unique number in the database.		
		Base on the Registration number system generated the QR Code that give the basic information of the traders.		

		The system need to produce the near 10 Dashboard and 10 reports relate to the Registration Module. Report generates ( Data visualization, frequency table, cross tabulation, trend analysis)		
		The Traders will received the notifications relates to trading or complains through the SMS facility.		
		The Traders can mention the GIS location of the Trading locations in the System.		
		The system should link with the payment module and get the registration fees for define period. Payment of Registration Annual fee payment method, Payment details reports need to produce.		
		The system should have a facility to link with bank statement and do the reconciliation of the system.		
		The system have a facility Renew the registration (every year)/register new businesses. Online application to renew the business, No of renewals, Pending renewals (week/monthly), New businesses registered, renewal fee payment method.		
		The system should take a Legal Action against the not registered traders. Following information need to produce No. of Legal actions taken against businesses, No. of organizations not registered, Alert on Previous offences (only for CAA views)		
		The System need to capture the Business category: 1. Manufacturing, 2. Import, 3. Export, 4. Distribute, 5. Wholesale, 6. Retail, 7. Services, 8. Storage facilities, 9. Resell 10. Any other define by the CAA		
		The system need to capture Type of ownership: 1. PVT Ltd, 2. PLC, 3. Co-operative, 4. Government corporation 5. Partnership, 6. Sole proprietor		

	<b>Price Management Module</b>	<p>The System s</p> <p>hall facilitate to trace the data entering location, Island wide retail price report, District wide retail price report, Category wise retail prices, Price variation reports, District wise annual average price report</p>		
		Auto generated letter to submit Costing information(Email/Manual) ,Auto reminder for officer who is following the process.		
		<p>The system should have a facility to generate the price calculation and reports on following information's.</p> <ol style="list-style-type: none"> <li>1. Commodity average prices Country wise imports</li> <li>2.Commodity import variation report</li> <li>3. Estimated MRP</li> </ol>		
		The system should have a facility Integrate Local Crop production and Farm.		
		The System need to have facility for price calculation base on the Artificial Intelligent.		
		Artificial Engine need to leverage the Analytics and recommendation		
		AI can analyse real-time market data, customer behaviour, competitor prices, and other relevant factors to adjust prices dynamically. This approach ensures that prices are optimized for maximum profit based on current market conditions		
		AI can analyse historical and real-time market data to predict price trends for stocks, commodities, and other financial instruments.		
		The system should have a facility to enter the daily retail price collection in the different location of the country.		
		There should be a data upload from different system regarding the price details. Base on the common data format data can be upload into the system.		

		The price information need to authorised and approve in the work flow.		
		The system should have a facility to verify the data entering location through the GPS system.		
		The officers end of month travelling expenditure will be calculate base on the data entry locations.		
		There should be a facility to mention the reason for price variants.		
		If the price is not enter before 12pm there will be alert generation happen in the system. The bidder need to evaluate this process and suggest the business process reengineering.		
	<b>Complain Management Module</b>			
		The system should have facility to receiving the complaints, Acknowledgement to complaint, Calling observation, Calling discussions, No of customer complaints, alerts, View relevant complaints, Viewing the status of the respective claim, Automation of Claims & Connectivity of the Finance Division.		
		No of raids on trade related, Locations, Update the system after Raid and after Court case, Assign RO for relevant Raid,		
		The System have a facility allocation of decoy money, update Decoy money.		
		The system have a facility capture the complains against the Traders and market investigations.		
	<b>Court System</b>			
		Court Case Tracking functionality to support the CAA in maintain a database of court cases including tracking the status of the cases		



	<b>Raid / Fine Module</b>			
		The system should facilitate to identify all key information of a raid such as Conducted By, District, Book Ref Number, Date of Raid, Case Filed on, Town, Magistrate Court, Accuse Name, Shop Name, Accuse Address, Raiding Officer, Decoy, Case Number, Offence, Product, Quantity, Fine, Decoy Money, Decoy Money settlement, Government Charges, Next Date, Date of Fine, Current Status,		
		Prosecution officer, Observer, Receipt No, Remarks.		
		When entering new data, the system should facilitate to enter of historical data since 2005.		
		System shall categorize raids data whether the raid followed by complaint or market investigation.		
		System should facilitate to identify location of raids.		
		System should facilitate to update the pictures/Videos		
		Could be able to get customize reports.		
		Authorized officers should be permitted to enter data.		
		System shall enable the uniqueness of the data such as product name, Offence category, Current etc. in order to prevent inequalities (Eg. Spelling Differences).		
		Completion of entering monthly records should be recommended /validated by the District Head.		

**NOTE**

**Please refer the annexure 1v for more details of the Modules**

## 1. Data Migration

This section lists some key functions in the system and these requirements need to analysis in detail by the Software implementation partner.

### a. Migration of Existing Data

The data from the existing system table need to be migrated by the SIP into the CAIS. The number of records from the key tables in the existing system is summarized below

The table below presents other key statistics with reference to the existing information.

Summary of total number of records in the existing Excell Files

No of Exciting Excell Files in the CAA		No of Rows	Occurrence
	Warehouse	1300	Total
	Items lists	100	Monthly
	1977 Complains	5000	Yearly
	Traders	1000000	Total
	Written Complain	3000	Yearly
	Raids	300000	Total
		Max 30000	Yearly
	Retail Price Collection	611000	Yearly
	Regular Frequent reports based on Custom data	300,000	Yearly
	Cost structures	16000*30	Yearly

### a.2. Services to be rendered by SIP for migration of existing data

Following summarises the services to be rendered by SIP w.r.t. migration of existing data.

1. Creation of replica of the existing database for the purpose of quality assessment, cleansing and migration. Necessary pointers need to be maintained to ensure that the date and time of creating the database replica/backup is documented to enable migration of the new records, which are posted after that date and time to the live database.

2. From the replica of the database, SIP is required to study the existing table schema with necessary consultations from the IT team within the department to understand the database design, tables, data stored in each table, master/transaction tables etc. It is to be noted that currently there is no documentation that is created or maintained for database design at the department and SIP is required to coordinate with the staff, who have been maintaining the database for the department for the purpose of understanding the database and table structures..
3. To develop the data migration strategy and plan detailing the specific data, number of records etc that will need to be migrated from the existing database to the target system.
4. To perform data quality assessment for the existing records to identify the duplicate, incomplete and incorrect data etc. The SIP need not compare the data in the database with the physical records. RIP need to use the standard data quality assessment tools to verify the quality, completeness and accuracy of the data. The data migration strategy document should clearly outline the testing criteria, which shall be used for assessing the quality, completeness and accuracy of the data. Such criteria need to be discussed and developed based on the consultations with the department.
5. Cleansing of the data based on the findings from the data quality assessment and based on the approvals provided by Consumer Affairs Authority on findings of the data quality assessment.
6. To prepare the routines/using the tools for migration of the data from existing database
7. Migration of data from the database
8. Post migration checks/assessments to verify the completeness and accuracy of the data that is migrated to the target system.
9. Any other activity that is needed for successful migration of the existing data/records into the CAIS

### **a.3. Cost of data migration**

SIP is required to provide the cost for migration of the data from the existing system to the CAIS and shall be paid as per the payment schedule indicated in the bidding document. The migration related task will be associated with Payment milestone.

## Annex 1:Service Cover Period / Performance requirements (SLA)

Following table defines the key performance indicators for monitoring and measuring the performance of SIP w.r.t CAIS systems management and related impact on payments to be made by Consumer Affairs Authority. Following provides definitions of terms used in the CAIS performance indicators.

The SLA parameters shall be measured on a 24/7 basis and the SLA reports shall be made available to Consumer Affairs Authority at any point of time.

CAIS performance indicators

S.N	SLA Parameter	24/7 Performance Achieved (%)	Per Incident charges
<b>1</b>	<b>Availability of the systems</b> <i>(Availability of systems will not only refer to the uptime of hardware and related operating system, but also includes the uptime of the web, application and database systems and services of CAIS to users from Consumer Affairs Authority , spending units and other related stakeholders.)</i>		
1.1	Availability of CAIS web, application and database servers	<99.52	Rs 50,000 per incident
1.2	Availability of CAIS web, application and database servers	<97.14	Rs 75,000.00 per incident
<b>2</b>	<b>ICAIS Portal loading time</b> The measurement process shall ensure that the page is loaded from the server not from the local cache in the system used for measurement.		
2.1	CAIS Portal loading time	>3 sec	Rs 25,000
2.2	CAIS Portal loading time	>5 sec	Rs 50,000
2.3	CAIS Portal loading time	>7 sec	Rs 75,000
<b>3</b>	<b>Compliance with Critical Standard Operating Procedures (e.g. data backup, application of patches etc)</b>	<b>For every incidence of procedural lapses</b>	

S.N	SLA Parameter	24/7	Per Incident charges
		Performance Achieved (%)	
<b>4</b>	<b>Helpdesk Operations</b> <i>(any incidence of helpdesk staff closing the call/ticket without actually providing the resolution to the staff will attract maximum penalty based on the nature i.e. high/medium/low of the issue reported by the staff)</i>		
4.1	Resolution of High-Critical issues reported/support sought by the internal users	> 6 hours	Rs 30,000 per incident
4.2	Resolution of medium-Critical issues reported/support sought by the internal users	>8 hours	Rs, 20,000 per Incident
4.3	Resolution of low-Critical issues reported/support sought by the internal users	> 12 hours	Rs 10,000 per incident

### Annex 3: Interoperability Standards

The solution proposed and implemented for CAIS shall ensure compliance with ICT standards defined by Government of Sri Lanka. Information and Communication Technology Agency (ICTA) spearheads definition of ICT standards for e-Governance initiatives in the country and is also leading implementation of key e-Governance projects in the country such as Lankagate and definition of Lanka Interoperability framework (LIFe). SIP is required to ensure that CAIS is implemented in line with the standards defined by ICTA and complete adheres to the standards defined by ICTA. SIP is required to perform close coordination with ICTA to ensure that CAIS is interoperable with Lankagate and other e-Governance initiatives/systems planned at national level. Following briefly outlines the LIFe standard defined by ICTA and bidders need to look into ICTA website ([www.icta.lk](http://www.icta.lk)) for the ICT policies and standards developed by ICTA, which shall be adopted in CAIS implementation.

**Lanka Interoperability Framework** (LIFe) is an initiative undertaken by Ministry of Public Administration and Home Affairs in collaboration with Information and Communication Technology Agency (ICTA) to establish recommendations for common data architecture and standards for data exchange for the Government of Sri Lanka.

ICTA as part of the Technical Architecture, Security and Standards (TASS) program has published documents on Government ICT Policies, National Enterprise Architecture Standards Guidelines and Information Security Guidelines.

These documents establish policies and recommendations for use of standards in government organizations. These policies and recommendations are intended to promote interoperability of government information systems.

Further to this effort, Lanka Interoperability Framework is formulated to provide guidelines for different government information systems to standardize data architecture and data exchange.

This will enable the whole of government to operate as a single seamlessly integrated collaborated service, providing efficient and effective service through different service delivery channels – like face-to-face, phone, internet, mail, etc.

SIP is also required to ensure that proposed solution for CAIS and its implementation is fully compliant with the E-Government policy of Government of Sri Lanka including the specific standards prescribed in the e-Governance policy document. Please refer to the following documents for the E-Governance policy and related standards prescribed by Government of Sri Lanka. These documents are available online in the ICTA website at [....](#)

- a. ICT Policies and procedures for Government
- b. Circular of e-Government Policy
- c. Detailed Government Policy Checklist

Bidders may seek any clarifications needed on the standards, policy documents referred above.

#### **Annexure 4: Modules**

All modules should incorporate generally accepted standard features, processes, standards, and comply with any guidelines of regulatory bodies (where applicable), meet security standards including audit trails found in such Information Technology solutions, as a minimum. The consultant should also submit the minimum hardware requirements needed for the proposed solution.

#### **1 National Business Register Model (Refer Table 1 / Diagram 1)**

##### **1.1 Registration of Traders**

Online Application, Type of ownership, Type of business, system alerts, Validate data with Registrar of Companies and Business Registration

##### **1.2 Payment of Registration**

Annual fee payment reports, Payment details reports

##### **1.3 Renew the registration (every year)/register new businesses**

Online application to renew the business, No of renewals, Pending renewals (week/monthly), New businesses registered

##### **1.4 Legal Action**

No. of Legal actions taken against businesses, No. of organizations not registered, Alert on Previous offences

##### **1.4 Integrate relevant institutions**

Integration with ROC database, Divisional secretariat data bases

#### **2. Commodity Standards and Quality module (Refer Table 2 / Diagram 2)**

2.1 Enter Regulatory Bodies Standards and Items Item category management (Item should be able to classified in to multiple categories)

2.2 Enter existing and new regulations, No of food items regulated, No. of food items not regulated, No of non-food items regulated, No of non-food items not regulated, Generate report on update and removed items

2.3 Integrate other institutional data

2.4 Reports on new products/ regulations updated, Alert to publish data entered by other regulatory institutions.

#### **3 Price Management Module (Refer Table 3 / Diagram 3)**

##### **3.1 Daily Retail Price Collection**

system shall facilitate to trace the data entering location, Island wide retail price report, District wide retail price report, Category wise retail prices, Price variation reports, District wise annual average price report

##### **3.2 Integrate to Customs**

Commodity average prices, Country wise imports, Commodity import variation report, Estimated MRP

##### **3.3 Integrate Local Crop production and Farm**

Weekly, monthly, annual production statistics, Estimated price variation reports



#### **4 Complain Management with Investigation and Raid module (Refer Table 4/Diagram 4)**

##### **4.1 Complain Management.**

Receiving the complaints, Acknowledgement to complaint, Calling observation, Calling discussions, No of customer complaints, alerts, View relevant complaints , View the status of the respective claim, Automation of Claims & Connectivity of the Finance Division

##### **4.2 Market Investigation and Raid**

No of raids on trade related, Locations, Update the system after Raid and after Court case, Assign RO for relevant Raid,

##### **4.3 Decoy Money Process**

Allocation of decoy money, update Decoy money

In CAA AS there are basically four modules such as 1) National Business Registration module 2) Commodity Standards and Quality module 3) Pricing module 4) Complain Management with Investigation and Raid module. Key functionalities of each module as mentioned earlier should be interlinked with centralized data based.

#### **5 User Management module**

**1** User registering and updating

**2** Resetting passwords

**3** User levels permission management

**4** User access control

TABLE 1 – National Business Registration

## Section IV. Bidding Forms

Phase	Data Feeding	Internal Control and Validation	Reporting Requirement	Management Information System or Dash Board
<b>Registration of Traders</b>				
<ul style="list-style-type: none"> <li>Online Application</li> <li>CAA District Office (Application - manually)</li> <li>Applications publish on national papers</li> </ul>	<ul style="list-style-type: none"> <li>CAA Staff</li> <li>All types of businesses</li> <li>Import data from Registrar of Companies</li> <li>Import data from LA &amp; DS(if available)</li> </ul>	<ul style="list-style-type: none"> <li>Validate scan copy of Business Registration (BR)</li> <li>Validate data with Registrar of Companies (ROC).</li> <li>Validate data from LA&amp;DS</li> </ul>	<ul style="list-style-type: none"> <li>Type of ownership (Proprietor, Company, Partnership, Franchise etc.)</li> <li>Type of business (Manufacturer, Importer, Distributer, Wholesalers, Retailer etc...) reports</li> <li>Industry or Sector (Automobile, FMCG, Textile, Food &amp; Beverage etc.) wise Reports</li> <li>Area / Institutes wise reports</li> <li>Annual fee payment reports District, Province, etc...</li> <li>Contact Details (Address, Telephone numbers)</li> <li>Details of Business registrations (reg. no, Start date, no of branches)</li> </ul>	<ul style="list-style-type: none"> <li>system alert when repeating data.</li> <li>Digital application and instructions to fill the application.</li> <li>Renewal alert</li> <li>Payment Alert</li> </ul>
<b>Payment of Registration</b>				
<ul style="list-style-type: none"> <li>Online</li> <li>Commercial Banks (separate ACC no)</li> </ul>	<ul style="list-style-type: none"> <li>CAA Staff</li> </ul>	<ul style="list-style-type: none"> <li>Validate offline payments by CAA staff.</li> </ul>	<ul style="list-style-type: none"> <li>No. of businesses registered</li> <li>Payment details reports</li> </ul>	<ul style="list-style-type: none"> <li>Alerts for the Payments has been made.</li> </ul>
<b>Renew the registration (every year)/register new businesses</b>				
<ul style="list-style-type: none"> <li>CAA District / Head office</li> <li>Online application to renew the business</li> <li>Online Application to register new Businesses registered under DS offices.</li> </ul>	<ul style="list-style-type: none"> <li>CAA Staff</li> <li>Officers of relevant institutions (LA/DS)</li> </ul>	<ul style="list-style-type: none"> <li>Validate offline payments</li> <li>Validate from DS LG</li> </ul>	<ul style="list-style-type: none"> <li>No of renewals</li> <li>Pending renewals (week/monthly)</li> <li>New businesses registered</li> </ul>	<ul style="list-style-type: none"> <li>System alert to renew the registration annually by sms email, etc</li> <li>Online payment methods</li> </ul>
<b>Legal Action</b>				
<ul style="list-style-type: none"> <li>Taking action to file cases against the business entities who did not registered under CAA provisions.</li> </ul>	<ul style="list-style-type: none"> <li>CAA Staff</li> </ul>	<ul style="list-style-type: none"> <li>Recommendations from CAA officers to take legal actions.</li> </ul>	<ul style="list-style-type: none"> <li>No. of organizations not registered / not renew the businesses.</li> <li>No. of Legal actions taken against businesses.</li> </ul>	<ul style="list-style-type: none"> <li>Check with the system</li> <li>Alert on Previous offences (not done the payments)</li> </ul>
<b>Integrate relevant institutions</b>				
<ul style="list-style-type: none"> <li>Integration with ROC database/Divisional secretariat data bases (where there are online systems already)</li> </ul>	<ul style="list-style-type: none"> <li>CAA Staff</li> </ul>	<ul style="list-style-type: none"> <li>Publish by CAA</li> </ul>		<ul style="list-style-type: none"> <li>Indicator/alert when uploading data to the system through the given link.</li> </ul>

TABLE 2 – Commodity Standards and Quality

## Section IV. Bidding Forms

Phase	Data Feeding	Internal Control and Validation	Reporting Requirement	Management Information System or Dash Board
<b>Enter Regulatory Bodies Standards and Items</b>				
<ul style="list-style-type: none"> <li>Institutions Eg. CAA, SLSI, NMRA, TRCSL etc..</li> <li>Regulated Items Eg. <b>Food</b> (milk powder, Butter, Bottled water etc...), <b>Non-food</b> (soap, Helmets, hair dye etc...)</li> <li>Standards/Basic requirements Eg SLS 984 Electric Bulbs.</li> </ul>	<ul style="list-style-type: none"> <li>Enter existing and new regulations by CAA Staff.</li> <li>Data to be feed by Allocated officers from relevant institutions</li> </ul>	<ol style="list-style-type: none"> <li>Verification to be done by the relevant regulatory institutions</li> <li>Validate regulated and un-regulated items by CAA</li> <li>Coordination with regulatory bodies on future regulations</li> </ol>	<ul style="list-style-type: none"> <li>Regulations issued under the relevant Acts</li> <li>No of food items regulated</li> <li>No. of food items not regulated</li> <li>No of non-food items regulated</li> <li>No of non-food items not regulated</li> <li>Regulations to be issued</li> <li>Generate report on update and removed items</li> </ul>	<ul style="list-style-type: none"> <li>Relevant Essential items (food or non-food) which are not regulated under any regulatory Authority (Eg Exercise machines, Imported Readymade Garments)</li> <li>Search Items by Products</li> <li>Search Items by Regulatory Authorities.</li> <li>Search items by Brands</li> <li>All categories</li> <li>Publish though CAA website</li> <li>Link/publish through website of other Regulatory institutions</li> </ul>
<b>Integrate other institutional data</b>				
<ul style="list-style-type: none"> <li>Come to Agreements with regulatory institutions</li> <li>Product and regulation Changers</li> <li>Stay alert for new regulatory bodies</li> </ul>	<ul style="list-style-type: none"> <li>Feed data through the access to the system by other institutions.</li> <li>Feed data by relevant institutions through the access given to them.</li> </ul>	<ul style="list-style-type: none"> <li>CAA has to Publish data which are validated by other institution</li> <li>Validation by the relevant authority.</li> </ul>	<ul style="list-style-type: none"> <li>Generate periodical reports</li> <li>Reports on new products/ regulations updated</li> </ul>	<ul style="list-style-type: none"> <li>Alert to publish data entered by other regulatory institutions.</li> </ul>

TABLE 3 – Price Management

## Section IV. Bidding Forms

Phases	Data Feeding	Internal Control and Validation	Reporting Requirement	Management Information System or Dash Board.
<b>Daily Retail Price Collection</b>				
<ul style="list-style-type: none"> <li>District Level - CAA</li> <li>National Economic Centers.</li> </ul>	<ul style="list-style-type: none"> <li>Data required to be feed from shop location.</li> <li>Download historical data to the system.</li> </ul>	<ol style="list-style-type: none"> <li>The system shall facilitate to trace the data entering location in order to verify whether officers has physically visited to said location to collect data. End of the month report will be able to generate to make payment for travelling subsistence.</li> <li>District Manager shall recommend data submission.</li> </ol>	<ol style="list-style-type: none"> <li>Island wide retail price report</li> <li>Districtwide retail price report.</li> <li>Category wise retail prices. i.e. Vegetable prices, Rice Prices</li> <li>Price variation reports, compared with previous day, previous month, previous years.</li> <li>Island wide monthly average price report.</li> <li>District wide monthly average price report.</li> <li>Island wide annual average price report.</li> </ol>	<ol style="list-style-type: none"> <li>If prices are not entered to the system before 12 pm, message should be generated to inform to District Managers, Back end data validators.</li> <li>Commodity prices more than 10% compare with previous day and previous week, should be indicated.</li> <li>Prices higher the government imposed prices should be reflected, island wide</li> </ol>
		<ol style="list-style-type: none"> <li>Verification to be done by back end data verification officers and they should comment on price variations including reasons.</li> <li>Statistical officers shall generate the report.</li> <li>Front end officers do retail price verification and recommend report generation.</li> </ol>	<ol style="list-style-type: none"> <li>District wise annual average price report.</li> <li>Back end data validation reports and comments.</li> <li>Price forecast report of next three months, 6 months.</li> </ol>	
<ul style="list-style-type: none"> <li>Modern Trade</li> </ul>	<ul style="list-style-type: none"> <li>There shall be a interface to enter prices or import from client system.</li> <li>Data submission</li> </ul>		<ul style="list-style-type: none"> <li>Daily Modern Trade Price Report.</li> <li>Category wise retail prices. i.e. Vegetable</li> </ul>	<ol style="list-style-type: none"> <li>Commodity prices more than 10% compare with previous day and previous week, should be indicated.</li> <li>Prices higher the</li> </ol>

## Section IV. Bidding Forms

	<p>shall recommend by Authorized office of the Institution.</p> <ul style="list-style-type: none"> <li>• Front end officers shall verify the prices.</li> <li>• Authorized officer of CAA should recommend report generation</li> </ul>		<p>prices, Rice Prices</p> <p>3. Price variation reports, compared with previous day, previous month, previous years.</p>	<p>government imposed prices should be reflected.</p>
<b>Integrate imported data from Customs on daily basis to generate required information.</b>				
<ul style="list-style-type: none"> <li>• Obtain Import data from Customs.</li> </ul>	<ul style="list-style-type: none"> <li>• Custom Import data shall be integrate to the system or there shall be an interface to extract daily imported</li> </ul>		<ul style="list-style-type: none"> <li>• Commodity average prices.</li> <li>• Country wise imports.</li> <li>• Commodity wise countrywide imports.</li> <li>• Estimated MRP</li> </ul>	<p>1. Commodity prices more than 10% compare with previous day and previous week, should be indicated.</p> <p>2. Prices higher the government imposed prices should be</p>
	<p>statistics of selected commodities.</p> <ul style="list-style-type: none"> <li>• Cost structures to be developed and template shall available to enter data.</li> <li>• Annual consumption of each commodity should be able to enter.</li> </ul>		<p>as per the CIF values and determinants.</p> <p>5. Weekly, Monthly, annual requirements together with consumption rate.</p>	<p>reflected.</p> <p>3. Commodity import variation report comparison with annual consumption.</p>
<b>Integrate Local Crop production and farm gate prices in order to identify product supply and demand</b>				
<p>Local crops production forecast and actuals.</p>	<ul style="list-style-type: none"> <li>• There shall be an interface to enter data by competent relevant authority on forecasted production and actual production.</li> </ul>	<ul style="list-style-type: none"> <li>• Authorized officers of competent authority recommends data submission.</li> <li>• CAA officer verify data</li> </ul>	<p>Weekly, monthly, annual production statistics.</p> <p>Shortage or excess of production.</p> <p>Estimated MRP Reports.</p> <p>Estimate MRP and</p>	<p>Shortage or excess of production.</p> <p>Estimated price variation reports.</p>

## Section IV. Bidding Forms

	<ul style="list-style-type: none"> <li>Weekly farm gate prices to be updated by relevant competent Authority.</li> <li>Cost structures to be developed and template shall available to enter data.</li> </ul>	<p>submission and checked estimated MRP.</p> <ul style="list-style-type: none"> <li>Authorised officer of CAA recommend estimated MRP.</li> </ul>	Market Price Variation reports.	
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TABLE 4 - Complain Management

Phase	Data Feeding	Internal Control and Validation	Reporting Requirement	Management Information System or Dash Board
<b>1 Receiving Complaints</b>				
<b>1 Consumer Complaints personnel/other related doc. (replies, supporting doc, requests, settlement)</b> <ul style="list-style-type: none"> <li>CAA Head Office</li> <li>CAA District Office</li> <li>Online Complaints</li> <li>From other institutions (By email, post, fax, over the phone, online)</li> </ul> <b>2 Consumer Complaints relating to market investigations.</b> <ul style="list-style-type: none"> <li>CAA Head Office</li> <li>CAA District Office</li> <li>Online Complaints</li> <li>From other institutions (By email, post, fax, over the phone, online)</li> </ul>	<ul style="list-style-type: none"> <li>CAA Staff Head office, District Units Complainant (online complaints)</li> </ul>	<ul style="list-style-type: none"> <li>Receiving the complaint</li> <li>Registering the Complaints by the relevant divisions (Reference number)</li> <li>Acknowledgment to complainant.</li> <li>Calling Observation</li> <li>Calling discussions</li> <li>Request detailed complaint</li> <li>Reminders</li> <li>Issuing warning letters</li> <li>Validation from other institutions</li> <li>Taking Legal actions under section 57 against the respondent parties.</li> <li>Referring to Inquiries</li> <li>Referring to Consumer Affairs Council</li> </ul>	<ul style="list-style-type: none"> <li>No. of consumer complaints received during period (daily, Weekly, monthly).</li> <li>No. of consumer complaint received regarding market mal practices</li> <li>No. of complaint relating to anti-competitive practices.</li> <li>No. of complaints received from other institutions.</li> <li>No. of complaints referred to other organisations.</li> <li>No. of complaints within the legal provisions of CAA.</li> <li>Details of complaints against the same company or person.</li> <li>No of complaints referred to inquiries</li> <li>No of complaints referred to CAC</li> <li>Current position of the complaint</li> <li>No. of complaints handled by each officer.</li> <li>Inquiry decision.</li> </ul>	<ul style="list-style-type: none"> <li>Alert for issuing reminders/warning letters.</li> <li>Alert for time frame (legal provision)</li> <li>Current position of the received registered complaint</li> <li>Indicate details of Previous complaints against the same company/respondent</li> <li>Position indication (Settled, Pending)</li> <li>Acknowledgment within 3 working days</li> <li>Call Observation 1<sup>st</sup> reminder 2<sup>nd</sup> reminder Final reminder/warning</li> <li>Accesses levels</li> </ul>

## Section IV. Bidding Forms

3 Complaints on Anti-competitive practices. (By email, post, fax, over the phone, online) Own investigation			<ul style="list-style-type: none"> <li>Mode of receiving the complaint (By email, post, fax, over the phone, online)</li> <li>Nature of complaint</li> <li>Area wise complaint details</li> </ul>	
<ul style="list-style-type: none"> <li>Receiving Complaints via Mobile App</li> </ul>				
Receiving Complaint on personal redress, market investigations, Anticompetitive practices	<ul style="list-style-type: none"> <li>CAA Staff</li> <li>Head office,</li> <li>District Units</li> <li>Complainant (online complaints)</li> </ul>	<ul style="list-style-type: none"> <li>Receiving the complaint</li> <li>Registering the Complaints automatically through the system (Reference number)</li> <li>Autogenerated Acknowledgment to complainant.</li> <li>Calling Observation</li> <li>Calling discussions</li> <li>Request detailed complaint</li> <li>Reminders</li> <li>Issuing warning letters</li> <li>Validation from other institutions</li> <li>Taking Legal actions under section 57 against the respondent parties.</li> <li>Referring to Inquiries</li> <li>Referring to Consumer Affairs Council</li> </ul>	<ul style="list-style-type: none"> <li>No. of consumer complaints received during period (daily, Weekly, monthly).</li> <li>No. of consumer complaint received regarding market mal practices</li> <li>No. of complaint relating to anti-competitive practices.</li> <li>No. of complaints received from other institutions.</li> <li>No. of complaints referred to other organisations.</li> <li>No. of complaints within the legal provisions of CAA.</li> </ul>	<ul style="list-style-type: none"> <li>Alerts for complaints regarding the process of the complaint handling,</li> <li>Alert for issuing reminders/warning letters.</li> <li>Alert for time frame (legal provision)</li> <li>Current position of the received registered complaint</li> <li>Indicate details of Previous complaints against the same company/respondent</li> <li>Position indication (Settled, Pending)</li> <li>Acknowledgment within 3 working days</li> <li>Call Observation</li> <li>1st reminder</li> </ul>
			<ul style="list-style-type: none"> <li>Details of complaints against the same company or person.</li> <li>No of complaints referred to inquiries</li> <li>No of complaints referred to CAC</li> <li>Current position of the complaint</li> <li>No. of complaints handled by each officer.</li> <li>Inquiry decision.</li> <li>Mode of receiving the complaint (By email, post, fax, over the phone, online)</li> <li>Nature of complaint</li> <li>Area wise complaint details</li> </ul>	<ul style="list-style-type: none"> <li>2nd reminder</li> <li>Final reminder/warning</li> <li>Accesses levels</li> </ul>

TABLE 5 – Market Raids



## Section IV. Bidding Forms

Phases	Data Feeding	Internal Control & Validation	Reporting Requirement	Management Information System
<b>Raids Data Collection</b>				
<ul style="list-style-type: none"> <li>District Level – CAA</li> </ul>	<ul style="list-style-type: none"> <li>Data to be feed by authorized officers in District Units</li> <li>Data since 2005 to be feed/downloaded; the system shall facilitate to change/update historical data</li> <li>When entering new data, system shall categorize raids data whether the raid followed by complaint or market investigation</li> <li>System shall provide to enter all key information of a raid such as               <ol style="list-style-type: none"> <li>Conducted By</li> <li>District</li> <li>Book Ref Number</li> <li>Date of Raid</li> <li>Case Filed on</li> <li>Town</li> <li>Magistrate Court</li> <li>Accuse Name</li> <li>Shop Name</li> <li>Accuse Address</li> <li>Raiding Officer</li> <li>Decoy</li> <li>Case Number</li> <li>Offence</li> <li>Product</li> <li>Quantity</li> <li>Fine</li> <li>Decoy Money</li> <li>Decoy Money settlement</li> <li>Government Charges</li> <li>Next Date</li> <li>Date of Fine</li> <li>Current Status</li> <li>Prosecution officer</li> <li>Observer</li> <li>Receipt No</li> <li>Remarks</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>Authorized officers should be permitted to enter data.</li> <li>District Heads shall recommend data submission</li> <li>System shall enable the uniqueness of the data such as product name, Offence category, Current Status etc., in order to prevent inequalities (Eg. Spelling differences)</li> <li>When entering a raid data, system shall comply with mandatory data fields such as               <ol style="list-style-type: none"> <li>Conducted By</li> <li>District</li> <li>Book Ref Number</li> <li>Date of Raid</li> <li>Town</li> <li>Accuse Name</li> <li>Shop Name</li> <li>Accuse Address</li> <li>Raiding Officer</li> <li>Decoy</li> <li>Offence</li> <li>Product</li> <li>Quantity</li> <li>Decoy Money</li> <li>Current Status</li> <li>Observer</li> </ol> </li> <li>Completion of entering monthly raids and fines data should be recommended/validated by the District Head</li> </ul>	<ul style="list-style-type: none"> <li>District-wise raids, fines and cases filed periodic reports</li> <li>System shall facilitate tailor-made periodical reports by District, Raiding Officer, Prosecution Officer, Magistrate court, Current status, Shop name, Offence, Fine etc.</li> </ul>	<ul style="list-style-type: none"> <li>System shall indicate remaining filling cases and incomplete raids to the District Heads' logs.</li> <li>System shall facilitate to generate messages on trial cases in advance.</li> <li>System shall prohibit to change or delete data which were validated by district Head</li> </ul>

<b>Financial settlement</b>				
<ul style="list-style-type: none"> <li>District Level – CAA</li> <li>CA&amp;I Division</li> <li>Finance Division</li> </ul>	<ul style="list-style-type: none"> <li>Data to be feed by authorized officers in District Units</li> </ul>	<ul style="list-style-type: none"> <li>Authorized officers should be permitted to enter data.</li> <li>District Heads shall recommend data submission</li> </ul>	<ul style="list-style-type: none"> <li>District-wise decoy money based periodic reports</li> <li>Officer-wise decoy money based periodic reports</li> <li>Prosecution Officer based Magistrate court-wise reports</li> </ul>	<ul style="list-style-type: none"> <li>System shall indicate cases with unsettled decoy money status</li> <li>District head may able to view the usage of Decoy Money allocation</li> <li>System shall prohibit to change or delete data which were validated by district Head</li> </ul>



DIAGRAM 1 – National Business Registration

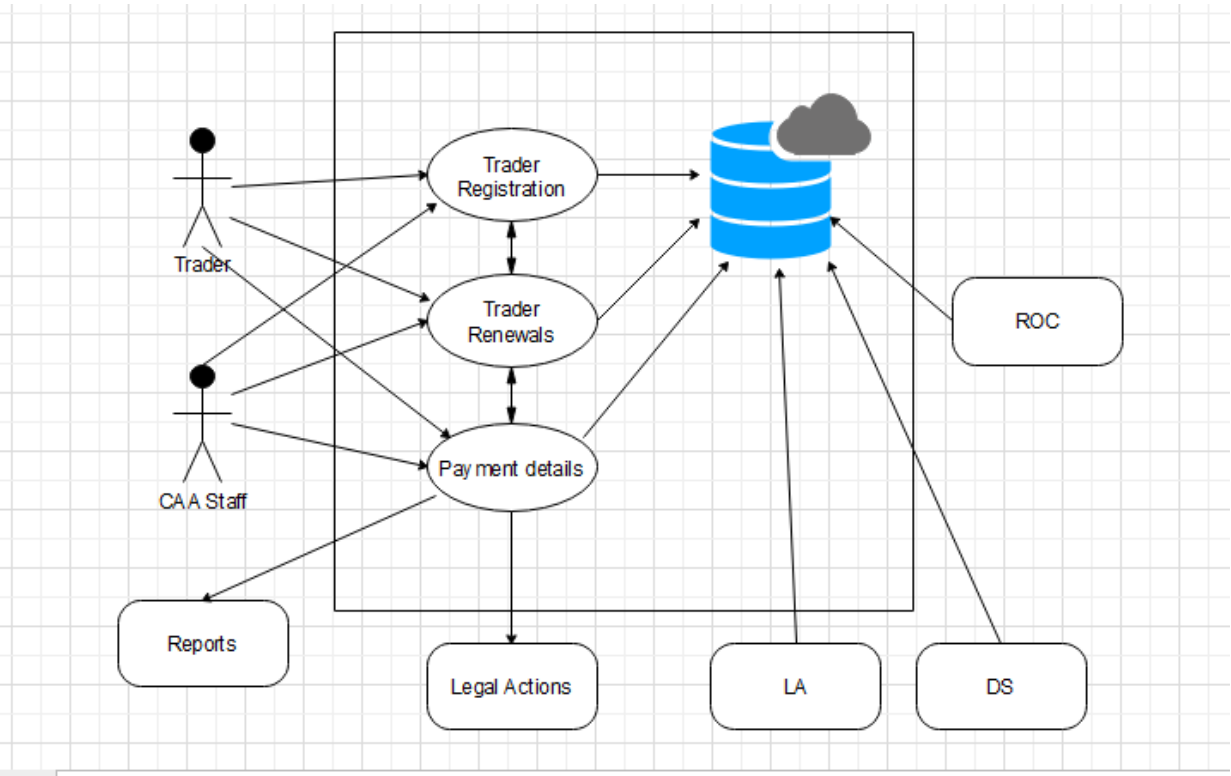


DIAGRAM 2 – Commodity Standards and Quality

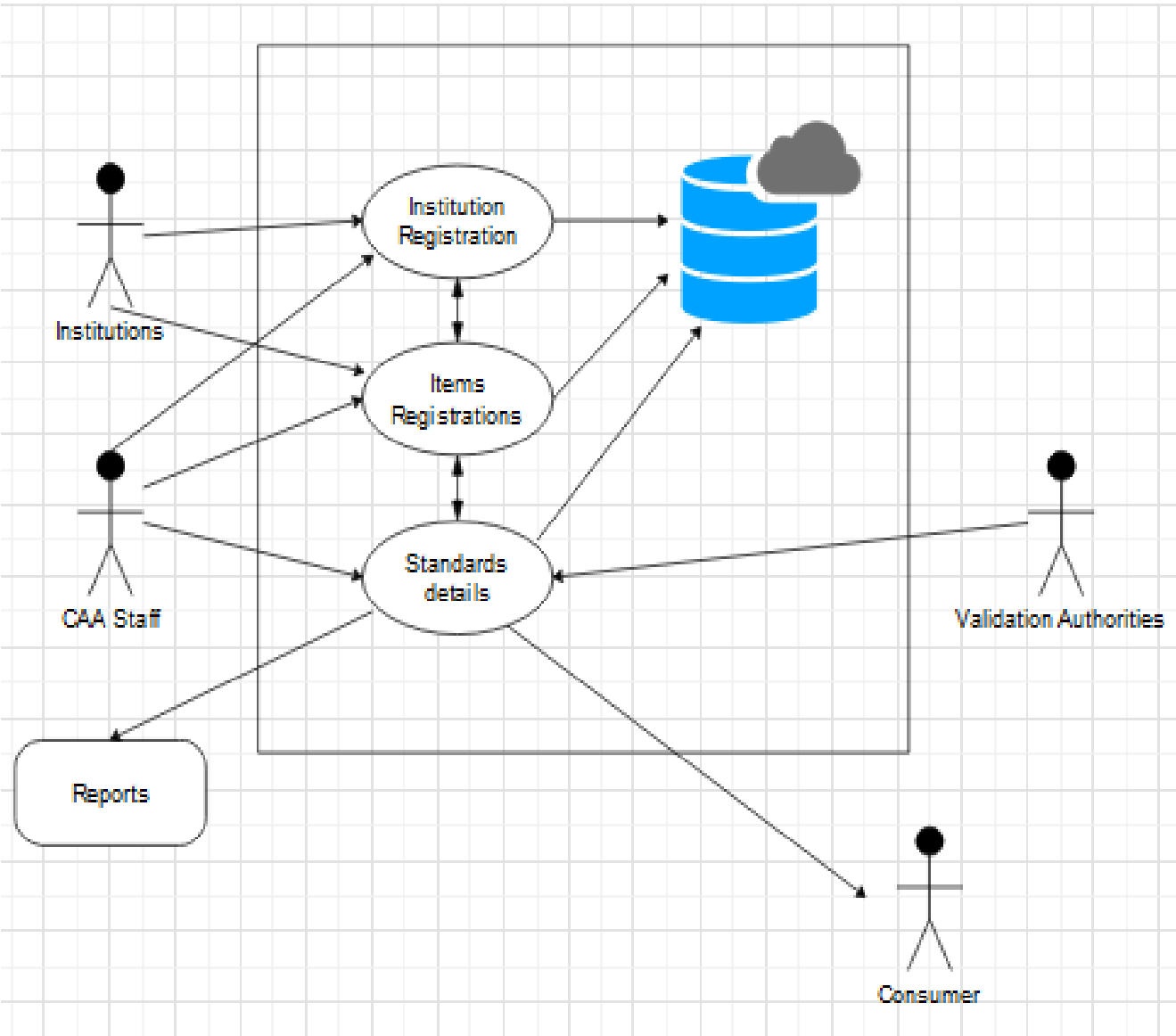


DIAGRAM 3 – Pricing

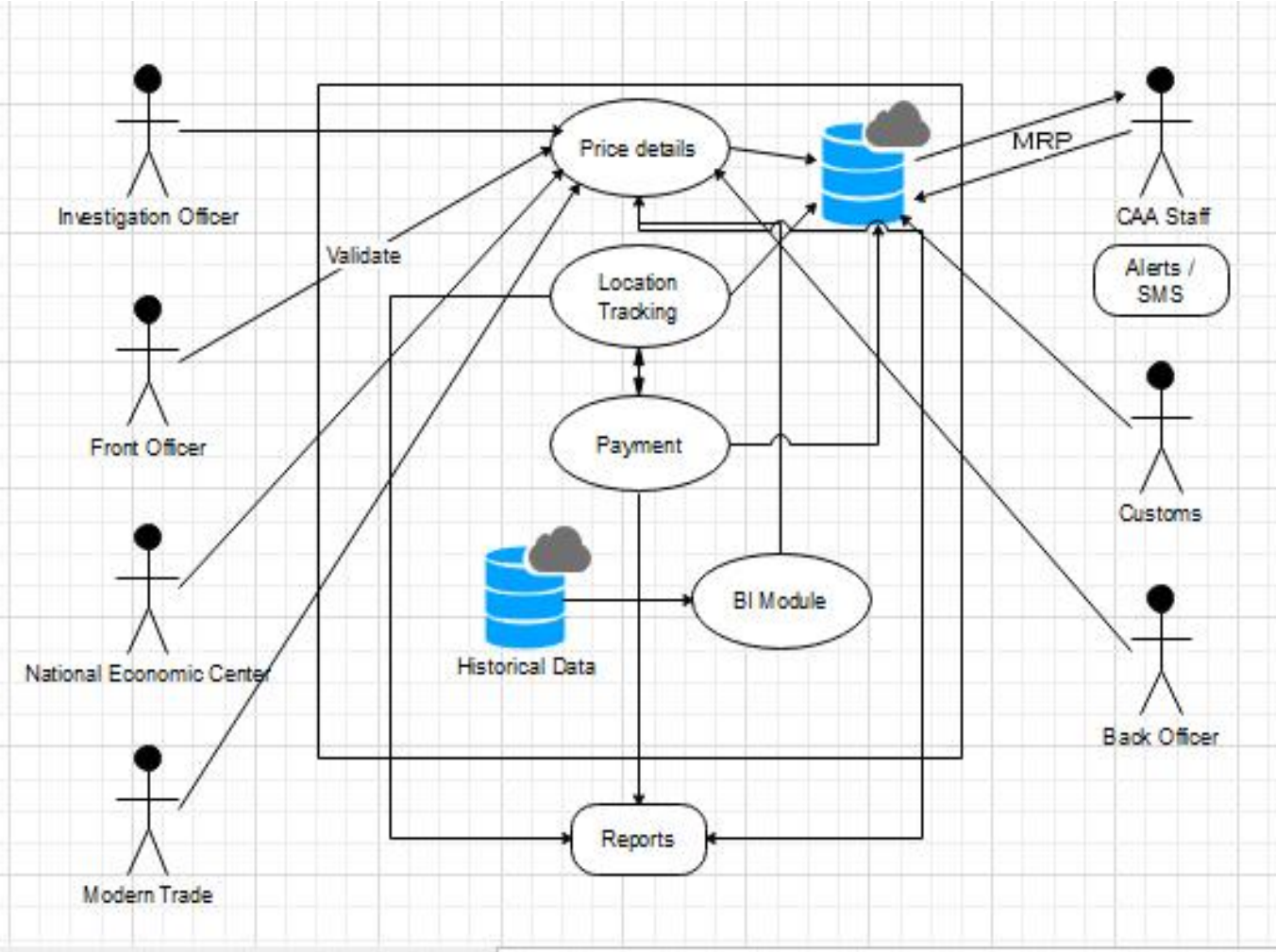
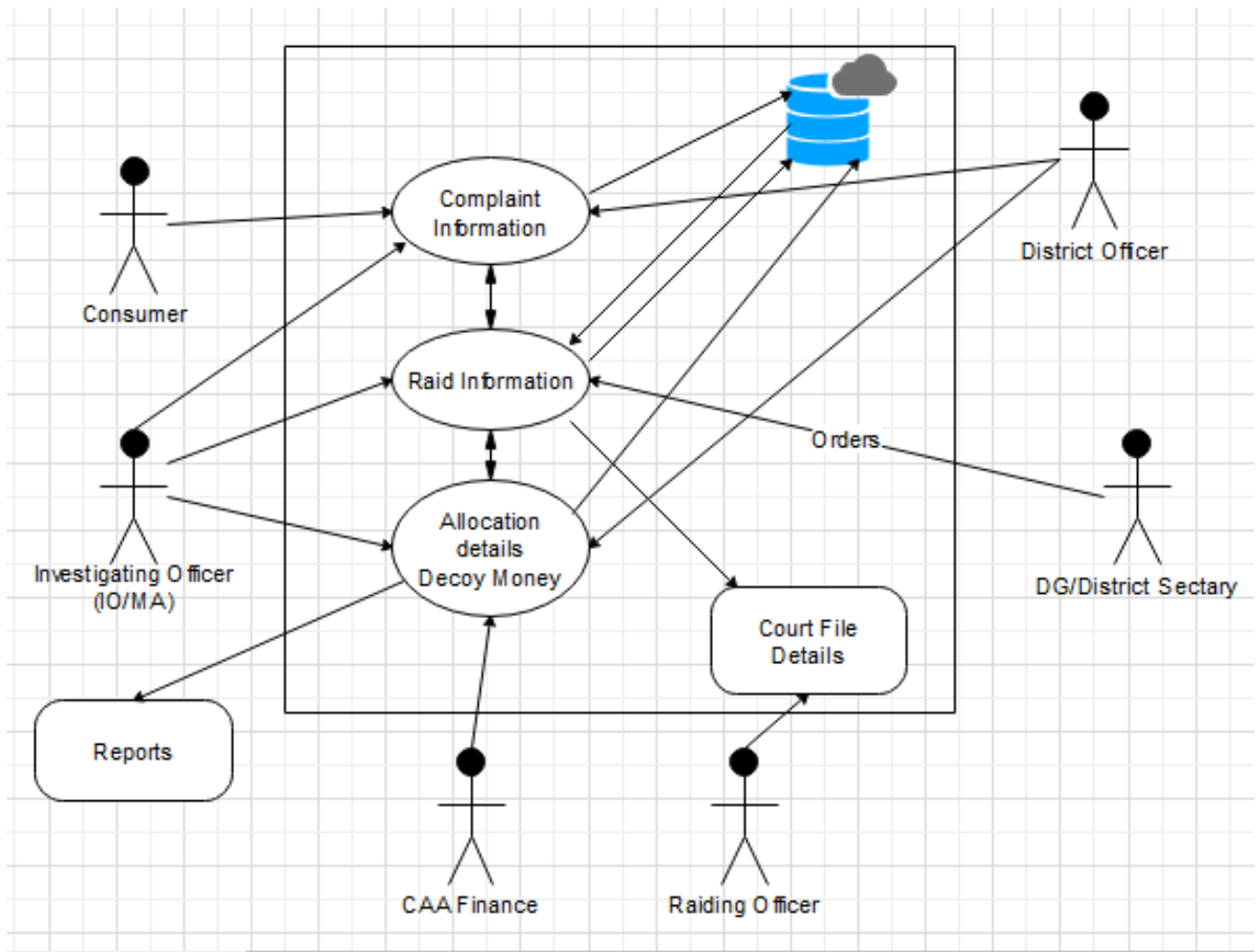


DIAGRAM 4 - Complain Management Investigation and Raid module



### Overall MIS dashboard for CAA / Provincial CAA

The proposed system will have a comprehensive decision support system including customized MIS dashboards with standard reports customized to suit management and operational needs at the Ministry, CAA, Provincial offices and Societies. This will be provided through an appropriate Human Computer Interface with appropriate security controls. This would also include access to the system at different user levels which will have to be customized at each location depending on their needs. This dashboard should be able to contain summary of their relevant information.

### Provide API to integrate other relevant authority transaction summary with MIS dashboard

Few of the other relevant authorities are using their own software systems for their transactions. Therefore, proposed MIS dashboard must be facilitated to provide API mechanism to update important information from other software systems.

Proposed system should be able to integrate department level MIS dashboard through API. (API mechanism and format can be discussed later).

**Provide cloud server facility to host system files, application and database**

- Server capable to handle system loading issues.
- Manageable server capacities.
- Server should be expandable
- System hosted with server.
- Consultant is expected to meet all general security measures.
- File manager should be available in server.

The software solution should be followed concept of **Multi-Tenancy software architecture**. Multiple independent instances of one or multiple applications operate in a shared environment. (Shared Schema /or shared databases)