



**Kogi State Government**  
**Kogi State Geographic Information Service (KOGIS)**  
**Terms of Reference**

**FOR THE “CREATION AND IMPLEMENTATION OF A DIGITAL ARCHIVE SYSTEM”**

**A. OBJECTIVE**

This Terms of Reference (ToR) objective is to guide the creation and implementation of a Data-Centric Digital Archive for warehousing (Archival) of Digital Certificates of Occupation (CofOs) that fully meets the minimum requirements outlined in section D of this ToR. The digital archive may be implemented using existing commercial products, and a perpetual license should be provided and included in the overall cost.

The Consultant is expected to deliver the digital archive system, introduce it to the sole Agency for Land Administration, Kogi State Geographic Information Service office headquarters, train local staff, handover the system with all relevant documentation, and provide technical support services within the period of 7 (seven) months.

**B. SCOPE OF WORK**

In undertaking the assignment, the Consultant shall collaborate closely with the management of KOGIS to plan and agree on the required activities to

implement the digital archive system. The specific tasks to be performed are as follows:

- To review existing workflows, rules, and procedures for managing C of O records. It should be noted whether any information system is currently being used for processing C of O records and how it can be potentially integrated with the digital archive system.
- To review and gather the statistics of C of O paper archives in the Registry of Lands Department to understand the required hardware to run and operate the digital archive system.
- To draft technical specifications for computer hardware required for the digital archive implementations.
- To consult with the Management of KOGIS and prepare the final list of requirements for the digital archive system.
  
- To develop and test the digital archive system as per System Requirement
- To prepare user and administration guides on operating and administration of the digital archive system
- To introduce the digital archive systems in the management of the KOGIS for testing and training.
- To prepare the training plan and program
- To deliver user and administrator training for all the Staff, especially Staff of the Archive Unit.
- To introduce the digital archive system into production in KOGIS
- To handover the system and documentation.
- To draft the final report.
- To provide technical support online and (offline) for One Year (12) months after the system introduction.

### **C. SYSTEM REQUIREMENTS**

The system requirements described below should be considered as a minimum set of system functions and capabilities required for the implementation. Existing products

can deliver more features.

### **General Requirements**

- 1) The system shall allow multi-user access over the network.
- 2) The system should be a Web or Desktop application with server-side components implementing business logic and database access.
- 3) The system can be supplied as a commercial open-source or custom development solution,
- 4) If the system is supplied as a commercial solution, it shall have perpetual licenses for a minimum of 50 users
- 5) If the system is supplied as a custom development, KOGIS shall have full ownership rights and unrestricted access to the source code. If a custom development is using any licensed components, it shall be agreed with KOGIS prior to using them and a required number of licenses provided, allowing access To (50) users at least.
- 6) The system shall be supplied with the user and administration guides as well as system documentation in a case of custom development (e.g, database description, system architecture)
- 7) In the case of a custom development, the supplier shall provide a warranty for 6 months, covering bug fixing.

### **Functional Requirements**

- 1) The user shall be required to log into the system using the username and password assigned by the administrator.
- 2) The main screen shall have a list of folders (or categories or workflow steps) on the left side and relevant list of records on the right side, allowing quick filtering of records in the system.
- 3) The displayed list of records shall allow sorting by visible columns and ordered by the registration date by default.
- 4) The list of records shall be displayed in paged format (e.g , 20 records per page) and allow pages navigation.
- 5) The system shall allow records search by the key attributes (e.g,

document type, range of registration dates, C of O number, owner name, folio number , status etc)

- 6) The system allow viewing of C of Os and relevant evidence through the search results or by opening it from the main screen.
- 7) The system may implement workflow steps for the data entry and its processing.
- 8) The system shall allow the capturing of various documents and recording them under C of O cases. Those have to include , but not limited to:
  - a) Certificate of Occupancy (C of O)
  - b) Land parcel survey diagram / location map
  - c) Owner's ID
  - d) Allocation letter, if applicable
- 9) All document types shall be defined with relevant metadata fields, which must include, but are not limited to the following:
  - a) Document type
  - b) Document date
  - c) Document number
- 10) For C of O documents, the following fields shall be captured but not limited to these fields:
  - a. Owner type (mandatory)
  - b. Owner(s) name (mandatory)
  - c. Owner(s) gender (mandatory)
  - d. Ownership type (mandatory)
  - e. Property unique ID/Survey number (mandatory)
  - f. Cof O issuance date (mandatory)

- g. C of O registration date (mandatory)
- h. Cof O reference number (mandatory)

11) The system shall allow scanning and attaching of paper copies. It shall allow selecting file format, scanning resolution, color mode and pages setting (single or multi page). It shall also allow editing of a scanned document, adjusting its brightness/saturation, rotating, and cropping scanned images. Native scanner applications can be used , but it shall be integrated with the user interface of the digital archive system.

12). Captured and committed documents shall stay read-only in the system. A user with a dedicated role can enable them for editing, and the system should request and record the reason for modification.

13) In the case of multi-department,/office access to the digital archive , the system shall allow configuration of user access by department/office. Only records relevant to user's department/office shall be displayed and accessible.

14) The system should track the history of record creation and modification, capturing, the user's name , device used, event type, date and time of such events. Recording modified fields and their previous values would be beneficial.

15) Every record shall display its modification login in a simple way.

16) The system shall allow generating of parameterized reports (by dates), for statistical reports, including , but not limited to the following :

- a. Overall number of Cof Os

- b.C of Os by gender
- c.C of Os by ownership type
- d. Captured documents by types

17) The system shall implement various user roles, defining their access to system features.

18)A dedicated system administration role shall be implemented for managing user accounts and system settings.

### **Non-functional requirements**

- 1) The system shall be easy to use and require minimum training for the end users.
- 2) All elements on the page shall have a clear tyle and proper spaces between them, not overcrowding page and placed into logical groups if needed.
- 3) Fonts and colors shall be consistent for the UI elements throughout all Pages.
- 4) Navigation elements shall be clear and help easy navigation between pages
- 5)Horizontal scrolls shall be avoided to keep maximum width to 1024 pixels
- 6)Form elements , which are not supposed to be modified, shall be displayed in different colors to distinguish from editable elements and be disabled for user input
- 7). Before submitting page results, simple fields check shall be done and highlight occurred errors instantly with a clear description or appropriate alert message displayed.
- 8) Partial page updates shall be implemented where appropriate to avoid a full-Page reload and get faster feedback.

### **D DELIVERABLES**

- Technical specification for hardware to run the digital archive system (including server, computers, scanners, network equipment). This is subject

to the equipment availability in KOGIS

- Digital archive system and its source codes (if custom development)
- System documentation (user guide, administration guide). Other technical documentation in the case of a custom development ( data base catalog, architecture description)
- Training plan and program
- Training
- Final report

#### **E LINE MANAGEMENT**

The Consultant will report to the Kogi State Geographic Information Service (KOGIS) management. Collaboration with KOGIS staff is required to ensure the smooth execution of tasks, including access to existing archives, digital systems, and relevant materials.

#### **F PROPOSED TEAM COMPOSITION FOR CUSTOM DEVELOPMENT**

- Team leader/ Business Analyst (1)
- Senior Software Developer (1)
- Software Developer (1)
- Tester/Technical support (1)

#### **G QUALIFICATION AND SKILLS (TEAM LEADER/BUSINESS ANALYST)**

- Bachelor's degree in Business Administration, Computer Science, Information Technology, Economics, or a related field.
- Master's degree in Business Administration (MBA), Project Management, or a relevant specialization is an added advantage.
- Certifications such as PMP (Project Management Professional), CBAP (Certified Business Analysis Professional), or Agile certifications (e.g., Scrum Master) are desirable.
- Proven experience (5+ years) in leading and managing teams in a business or IT-related field.
- Demonstrated ability to deliver projects on time and within budget.

- Experience in stakeholder management and conflict resolution.Strong understanding of strategic planning and decision-making
- Experience (5+ years) in business analysis, including requirements gathering, process modeling, and stakeholder engagement.
- Proven track record of analyzing complex systems and recommending effective solutions.
- Proficiency in tools such as:Project management tools: Microsoft Project, Trello, Jira, or Asana.Business analysis tools: Microsoft Visio, Lucidchart, or Balsamiq.Data analysis tools: Excel (advanced), Power BI, Tableau, or SQL. Knowledge of system development life cycles (SDLC), Agile methodologies, or Waterfall approaches.

## **H QUALIFICATION AND SKILLS SENIOR SOFTWARE DEVELOPER**

- Master’s degree in Computer Science, Information Technology, Business Administration, or related fields.
- Relevant certifications (e.g., PMP, CBAP, Scrum Master, AWS Certified Developer, or Microsoft Certified Azure Developer) are an advantage.
- Minimum of 5 years of experience in leadership, business analysis, and software development roles.
- Proven ability to lead cross-functional teams, deliver projects on time, and translate business requirements into technical solutions.
- Expertise in designing, developing, and deploying software systems using modern technologies.
- Proficiency in programming languages such as Python, Java, C#, or JavaScript.
- Experience with frameworks and tools like React, Angular, .NET, or Node.js.
- Strong knowledge of Agile, Scrum, and SDLC methodologies.
- Proficient in project management tools (e.g., Jira, Trello) and business analysis tools (e.g., Visio, Lucidchart).

## **I. QUALIFICATION AND SKILLS SOFTWARE DEVELOPER)**

- Bachelor’s degree in Computer Science, Software Engineering, or related fields.



- Relevant certifications (e.g., AWS Certified Developer, Microsoft Azure Developer, or Scrum Master) are a plus.
- 3+ years of hands-on experience in software development and deployment.
- Proven ability to design, develop, and maintain scalable software systems.
- Experience working in Agile and Scrum environments.
- Proficiency in programming languages such as Python, Java, C#, or JavaScript.
- Familiarity with frameworks like React, Angular, .NET, or Node.js.
- Knowledge of cloud platforms (e.g., AWS, Azure) and version control tools like Git.
- Understanding of software development lifecycle (SDLC) and DevOps practices.
- Strong analytical and problem-solving skills.
- Ability to collaborate effectively in cross-functional teams.
- Excellent communication and multitasking abilities.
- Adaptability to dynamic and fast-paced environments.

#### **J QUALIFICATION AND SKILLS TESTERS TECHNICAL SUPPORT**

- Bachelor's degree in Computer Science, IT, or related fields.
- 2+ years in software testing or technical support roles
- Proficiency in testing tools (e.g., Selenium, JIRA) and troubleshooting software/hardware issues.
- Strong analytical and problem-solving abilities.
- Familiarity with Agile methodologies and SDLC.
- Excellent communication and customer support skills.
- Ability to document and report bugs effectively. Basic programming (e.g., Python, Java) and understanding of IT systems/networking.

#### **K. DURATION OF THE ASSIGNMENT**

The assignment will be fully implemented in Three (months), starting from the contract signing date, and will be primarily conducted in the of KOGIS, Lokoja, Kogi State.

#### **L INPUTS BY THE CLIENT**

The Kogi State Geographic Information Service (KOGIS) will provide the Consultant with all available information and materials, relevant to the existing digital archive system and paper archives. The Client will access the paper archive for their review and assessment. The Client will assist in arranging required meetings and delegate a focal person for demonstrating the digital archive system and working with the Consultant. If required, the Client will provide an adequate office space, located at the Kogi State Geographic Information Service (KOGIS) premises.

#### **H. REPORTING REQUIREMENTS**

All reports will be shared with the management of the Kogi State Geographic Information Service (KOGIS). Reports shall be delivered in electronic form and hard copies for the final versions. The client's comments will be discussed at virtual and physical meetings. Required report amendments will be incorporated no later than one week after receiving these comments.

**Signed**

A handwritten signature in black ink, consisting of a large, stylized initial 'C' followed by a series of loops and a long horizontal stroke extending to the right.

**Director General  
Kogi State Geographic and Information Services (KOGIS)**

**31/12/2023**

