

Library Management System

Scope of work

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1 Background

Eskom Information Centre (EIC) had a Library system which was used to manage all the library activities that took place on daily basis. The contract for the system expired at the end of September 2018 and the users are unable to use the system. There is no solution available at the moment.

Without the library management system the EIC is unable to optimally provide electronic delivery of information sources. Business is not able to store, organize, retrieve and disseminate business information related to daily operations.

2 Scope of work/Business requirements

2.1 Business requirements:

EIC requires a library management system that will:

- Achieve flexibility and convenience in the process of accessing information
- Electronic cataloguing using a computer or mobile app
- Generates customized reports for library items, library inventory
- Tracking of materials and publications
- Facilitates the library circulation process by keeping records
- Supports other administrative tasks and enables instant data processing
- Email & SMS alerts
- The system should enhance reporting and monitoring within the library

Functionality of the system should be not limited to:

- Cataloguing
- Circulation
- Acquisition
- Financial
- Reports

2.2 Detailed requirements and Business rules

Detailed business requirements in number form ensuring that the functionality is sorted and described in functionality groupings.

No	Functionality	Acquisition Module	Cataloguing Module	Circulation Module
1	Authenticate User	X	X	X
2	Display	X	X	X
3	Addition	X	X	X
4	Duplication	X	X	X
5	Deletion or Remove	X	X	X
6	Modification	X	X	X
7	Receive	X		
8	User Registration			X
9	Check-out book			X
10	Check-in book			X
11	Item on Holds			X
12	Item Search	X	X	X
13	Check Item Status	X	X	X
14	Global Item Modification		X	
15	Global call number		X	
16	Renew User or privileges			X
17	Renew Item			X
18	Confirm Address			X
19	Suspend and Unsuspended User			X
20	Copy User			X

- **Authenticate User** - All users will login to the library management system using authenticated username and password
- **Display** - The user should be able to click on the display link to view details of information item and customer account details
- **Addition** - The system should allow the user to add the information item
- **Duplication** - The system should allow duplication of information item
- **Deletion** - The system should allow deletion of information item
- **Modification** - The system should allow modification of information item
- **Receive** - When an order is received by the librarian, the system should allow the capturing of the information received
- **User Registration** - For all the new customers, the system should allow the user to register new customers
- **Check-out information item** - The system should allow the user check out any information item available in the library

- **Check-in information item** - The system should allow the user check in any information item that was check-out to the customer
- **Check Item Status** – the system should allow the user to check the status of items
- **Global Item Modification** – the system should modification of information item globally and not limiting the user to modify locally
- **Renew User or privileges** – the system should the user to renew the customers privileges e.g. if the customer
- **Renew Item** – the system should allow the user to renew any information item for the customer if the customer still needs the item
- **Suspend and Unsuspend User** – the system should allow the user to suspend and unsuspend a customer
- **Copy User** – Ability to copy user from one module to another if needs be

Search and discovery - The system must have a search and discovery interface that will allow users to search the catalogue from a browser. The search and discovery interface must also be able to integrate with other databases that the library subscribes to, in order to allow. It must have the ability to provide different web pages for different staff profiles and each staff profile will have content relevant to their profile.

Configuration Functionality – the administrator should have full access of the system to be to configure/ customise the solution according to the Eskom in-house rules or policies. The configuration should include:

- Common tasks
- Acquisition configuration
- Authority configuration
- Catalogue configuration
- Circulation configuration
- General configuration
- OPAC configuration
- Selection List configuration
- Serial Control configuration
- User configuration
- Vendor configuration
- Access Control configuration
- Module configuration

Automation should include the following:

- Email and SMS alerts – immediately when a book is checked-out or checked-in, an email and SMS should be send to the customer informing them about the action that has happened
- Reminder alerts – when a book has been checked-out to a user, an email and SMS should be send to the customer a week before the expiry date

Audit trail functionality - The system should have audit trail of all the changes made by users

Offline Capability - The system must have the ability to operate in offline mode and automatically syncs data once the system is back online to avoid any data loss.

Mobile Application Capability

- The system must have mobile applications so that the user can perform circulation functions as well as search the catalogue from a smartphone or tablet with an iOS or Android app. The Mobile app to perform circulation functions must at least have the following functions:
 - Checkout, Checkin, user and item renewals add or modify users, user search, item search, place holds, inventory as well as weeding
 - The mobile application must have its own scanner built into the application. Must be able to integrate with RFID (Radio-Frequency identification) devices as well as use Bluetooth barcode scanners and printers.
 - Mobile application to search the catalogue. Using the application, the user must be able to see what is available in the library as well as perform functions such as renewals, place holds and check items currently on their name as well as the date these items are due.

Multi Branch - The system must be scalable whereby it can handle libraries of all sizes, from a single user to multiple branches / users

The selected system should follow the below **international standards**:

- UDC – Universal Decimal Classification (BS 1000M:1993)
- RDA – Resource Description Assess
- OCLC – Online Computer Library Centre.Inc
- AACR2 – Anglo American Cataloguing Rules
- LCSH – Library of Congress Subject Headings
- MARC21- Machine Readable Cataloguing

NB* All the library management systems follow the above specified **international standards** for compatibility and information sharing (e.g. ILL – Inter-Library Loan, IBL- Inter-Branch Loan)

2.3 Training:

- End-user, administration and support training courses are required. Training shall include functional training, as well as business process training. Full details of all training courses proposed shall be provided, including course descriptions, course prerequisites, course schedules, training equipment required, venues, maximum number of candidates per course and course cost.
- Training courses shall be presented in South Africa at venues to be. All travel and subsistence cost for candidates will be for the account of Eskom.
- The Respondent shall also offer suitable end-user training material to enable Eskom to perform in-house end-user training.
- About 25 users will require training of the solution.
- Users are located at different locations, Rosherville, Koeberg, Medupi and MWP

- Super-user training (Administrator) for 5 users
- General user training for 20 users

2.4 Data migration/exchange capabilities and support:

Suppliers should indicate how they can support a client in migrating from one solution to another e.g. exchange standards, import and export capabilities, and/or migration of data structures with data content.

2.5 Pricing:

Pricing to be provided by the service provider for a software as a service solution. The capability to implement offline use of the tool must be costed separately as an option to add to the main offering.

2.6 Demonstration:

Demonstration should be provided by the service provider.

2.7 Safety

The third party resources will be required to visit an Eskom site at any stage of the execution of the project and consultation with the Occupational Health and Safety Practitioner for applicable SHE requirements is mandatory.

3 Technical Evaluation Criteria

This section contains a non-exhaustive list of technical requirements.

3.1 Data

3.1.1 Application architecture

An off-premise cloud solution is preferred. Security of the Eskom information is critical and the solution must comply with Eskom security standards.

3.1.2 Information and Data Architecture

The Respondent shall provide a high level data design, covering at least the following aspects:

- The data structures (models) that are required to support the solution. Indicate what is Out-of-the-Box (OOTB) and what is customized.
- Solution data dependencies.

3.1.3 Data Privacy

The solution shall comply with the Protection of Personal Information (POPI) Act.

3.1.4 Data Ownership

All data (including metadata and derived data) related to the Library Management solution shall remain the exclusive property of Eskom and shall not be used by the Service Provider for any purpose other than Eskom operational purposes.

3.2 Data Migration and Configuration

Requirements:

- Relevant data must be migrated to and verified for the new Library management system prior to System testing.
- Where required, data configuration may be required to ensure that there is a fit to the chosen Library management system.

The *Service Provider* shall provide a complete and auditable process, including tools and instructions, to import all existing related data to the proposed system. A specification shall be supplied to:

- Identify all required data.
- Describe any configuration / conversion of data.
- Clearly state assumptions and exclusions.
- Describe implementation strategies.
- Provide development timelines.
- Provide implementation timelines.
- Establish verification methods.
- Specify test data requirements.

3.3 Network Communication

The Respondent shall provide a high-level network architecture for the proposed solution, and also indicate the following:

- Security measures and standards.
- Availability and performance levels.
- DR system network communication.
- Details of the network bandwidth required for integration to other business applications. (SAP HR, Microsoft exchange, SMS, External library interfaces)
- Details of the network bandwidth required for user interfaces, taking into account the user base and locations, as well as various system loading scenarios.
- Any other relevant information regarding the network components.

Eskom will evaluate whether the capacity of the Eskom WAN network needs to be increased based on these returnable, which may be considered in the evaluation of the operating cost of the services.

3.4 Performance Efficiency

The *Respondent* shall provide performance figures related to all critical performance aspects of their proposed solution, as well as a detailed description of the criteria used in establishing these performance figures. All measures shall be clearly explained.

The *Service Provider* shall compile a detailed performance test plan and test specification as part of the test documentation.

3.5 Reliability

The *Respondent* shall provide performance figures related to all critical reliability aspects of their proposed solution, as well as a detailed description of the criteria used in establishing these reliability figures. All measures shall be clearly explained.

3.6 Security

3.6.1 Data and System Security

- The system shall prevent unauthorized access, use, alteration or destruction of Eskom data.
- Only authorised and trained users shall be allowed to access and use the system.
- User access shall be determined by roles, business areas and other relevant criteria as identified by Eskom.
- Power Users shall be able to manage user access and privileges.
- Eskom's Identity Management System shall be used.
- The Respondent shall provide information regarding how they detect and report a compromise to Eskom data or services.
- All communications into and out of the system shall be secure. Eskom data shall be sent through an encrypted tunnel using the latest encryption standards.
- Data at rest on the Respondent's servers shall be encrypted in a manner consistent with Eskom governance and standards, and the encryption keys shall be held by Eskom.
- The Respondent shall monitor data flowing into their networks for malware and other attacks. Eskom shall have access to a dashboard to monitor such data.
- The solution shall be able to support integration and interfacing with a SIEM solution of Eskom's choosing.
- The Respondent shall comply with CIS standards for the hardening of network equipment, operating systems, and applications.

3.6.2 Incident Response

- The Respondent shall provide assistance for investigating any security incidents involving Eskom data or services.
- The system shall allow for the storage of and access to forensic information required by Eskom to conduct investigations, and Eskom shall have access to such information.

3.7 Compatibility

Eskom's architectural intent is to make use of loose coupling between systems, with finely grained services.

Integration will be required to:

- Eskom NAM/LPAD/AD for user authentication purposes
- Eskom SAP HR
- Eskom email system
- SMS server
- External libraries

The Respondent shall provide a high-level proposed integration design as part of its response, which will clearly describe how integration will be provided to each of the systems listed above.

The Service Provider shall utilise Eskom's integration platform to integrate to Eskom applications.

3.8 Testing

The Service Provider shall prove conformance to quality assurance procedures related to the development and support of its product. In this regard, the Service Provider shall substantiate, in the form of auditable test results and references to installed systems, that all aspects of the proposed system have been thoroughly tested and operationally proven.

The objective of testing is to confirm that the solution conforms to all contractual requirements.

Solution testing will consist of:

- Data testing.
- User acceptance testing (Functional capabilities and non-functional aspects)
- Performance testing
- Integration testing.
- Data quality validation.
- Hand-over sign-off shall consist of a record of all deliverables and test results.

The Service Provider shall compile a Test Plan, outlining all formal testing. The Test Plan shall conform to Eskom's SQA CoE standard. The relevant test specifications shall be produced by the Service Provider and approved by Eskom. Test cases and test results shall be provided to Eskom in a suitable format for importing into Eskom's test solution, HPQC. The results of all tests shall be documented by the Service Provider and signed by both the Service Provider and Eskom.

Internal testing done by the Service Provider shall be via a separate testing team that was not involved with the implementation (to be objective).

3.9 User Documentation

The Respondent shall submit, for evaluation purposes, an electronic copy of standard product and user documentation offered, as part of their proposal.

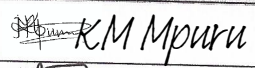

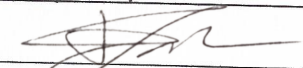

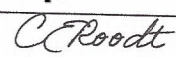

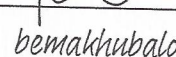
A short description, as well as tables of content for documentation to be developed shall be provided.

3.10 Application physical design

The successful respondent shall as part of the deliverables provide a physical design in a prescribed Eskom template for approval at the relevant governance committee.

Eskom supports a cloud first strategy.

SUPPORTED BY:

Name	Designation	Signature
Keabetswe Mpuru	Senior Manager Business Enablement	
Phillip Seabi	Senior Librarian	
Nelius Jordaan	Senior Architect	
Mogale Masipa	Manager System Support	
Elsa Roodt	Senior Librarian	
Pronella Masemola	Middle Manager Business relationship	
Busisiwe Makhubalo	Contract Advisor	

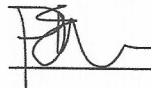
DOCUMENT ACKNOWLEDGEMENT

By signing this document, the people listed record their agreement on the contents of this document.

Project Manager
(Compiler)

Name: Pronella Masemola

Signature:



Date: 03/03/2021

Senior Librarian Library
(Business Requestor)

Name: Phillip Seabi

Signature:



Date: 04/03/2021

Snr Manager Business
Enablement
(Business Approver)

Name: Keabetswe Mpuru

Signature:



Date: 15 March 2021