



SCOPE OF WORK FOR

**IMPLEMENTATION OF THE ELECTRONIC
DOCUMENTS AND RECORDS MANAGEMENT
SYSTEM (EDRMS) FOR ALL TNPA PORTS
FOR A PERIOD OF FIVE (5) YEARS**

ABBREVIATIONS

Acronyms Abbreviations	or	Descriptions
EDRMS		Electronic Documents and Records Management Solution/System
NARSSA		National Archives and Records Service of South Africa
NASA		National Archives of South Africa
TNPA		Transnet National Ports Authority
AI		Artificial Intelligence
GIS		Geographic Information Systems

1. BACKGROUND, OVERVIEW AND SCOPE OF REQUIREMENTS

The need for records management is indisputable, it is an ordinary and necessary component of almost all business operations. A few years back, TNPA initiated the process of implementing a solution to improve records and documents management. Strides have been made to prepare the organization for this transition from manual documents, records, and information governance keeping to an electronic set-up while addressing the following:

- a) Determining how long recorded information needs to be kept.
- b) Ensuring compliance with records management laws and regulations in all ports.
- c) Managing inactive records in a cost-effective manner.
- d) Organizing active records for easy retrieval when needed.

The company is considering using Electronic Documents and Records Management System to keep its records, this will allow the company to manage records and files in both electronic and physical format. Having this solution in place will allow the consistency between paper, electronic and hybrid records. Furthermore, it will provide the ability to track location and the movement of files. This must be done in conjunction with Transnet records management policy and the National Archives and Records Services of South Africa Act (Act no. 43 of 1996).

2. PURPOSE

The purpose of this document is to provide a detailed scope of work for the appointment of potential service providers for Electronic Documents and Records Management Solution (EDRMS) for TNPA nationally for a period of five (5) years. The required EDRMS is expected to have capability to integrate with SAP and other TNPA systems and ensuring that management, control, and maintenance of TNPA records requirements are met.

3. OBJECTIVES

- 3.1.** The aim of this project is to preserve and set up processes as outlined by the International Standard on Records Management (ISO 15489). This should be done in line with Transnet records management policy and the National Archives and Records Services of South Africa Act (Act no. 43 of 1996).
- 3.2.** Additionally, the project will ensure that the transition of business practices from

paper to digital record keeping is facilitated and that all documents and records are secured and protected without compromising their integrity and authenticity.

4. SCOPE OF WORK

- 4.1.** The prospective bidder is required to provide Transnet National Ports Authority with an electronic documents and records management system on a national level (that is the Head office; eight ports, Dredging Services, Lighthouses and Navigation services).
- 4.2.** The electronic documents and records management system should have the capability that permits records management classification conversions such as:
 - 4.2.1. File Plan
 - 4.2.2. Retention schedule
 - 4.2.3. Information classifications

5. BUSINESS REQUIREMENTS

5.1. The following high-level requirements must be met:

- 5.1.1. The system must manage electronic documents and records.
- 5.1.2. Ability to manage and track physical (paper) records.
- 5.1.3. It must have a User-friendly interface.
- 5.1.4. It must provide for efficient and effective search and retrieval of information.
- 5.1.5. The ability to integrate with other systems through Application Programming Interfaces (APIs), to allow users access to information from various systems providing a single interface to access the organizational information.
- 5.1.6. Collaborative functionality that can assist with knowledge sharing.
- 5.1.7. Version control.
- 5.1.8. Audit trails and functionality to track documents throughout the organisation.
- 5.1.9. Identification and reduction of duplicates.
- 5.1.10. Incorporate file plans and retention schedules.
- 5.1.11. Incorporate security classification schemes.
- 5.1.12. Information Security to manage and protect user access and permissions.

- 5.1.13. The Electronic Documents and Records Management System must provide functionality to capture all documents irrespective of format.

5.2. These documents must include (but not limited to) the following:

- 5.2.1. Office documents (mostly in Microsoft office but can include other applications).
- 5.2.2. Graphical images and schematics (including technical drawings and plans).
- 5.2.3. Digital assets such as photographs and videos.
- 5.2.4. Email messages together with attachments.
- 5.2.5. Scanned images.

6. FUNCTIONALITY REQUIREMENTS

The system should have but not limited to the following functional capabilities:

6.1. Document Management workflow that will:

- 6.1.1. Allow different workflows for different document types.
- 6.1.2. Workflows with several steps, each step being (for example) movement of a document from one participant to another for action.
- 6.1.3. Allow document circulation and notifications (including the check-in and out of documents).
- 6.1.4. Protect the content once checked out of the repository.
- 6.1.5. Allow the use of email and or teams as a notification tool.
- 6.1.6. Able to assign rights to various libraries.
- 6.1.7. Effective access and security control over records.
- 6.1.8. Enable version of records.
- 6.1.9. Capability to assign the retention period to the document (compliance with legislation, company policies, and good practice).

6.2. Record Management:

- 6.2.1. Management of records and files in both electronic and physical format as Transnet is transitioning from paper to electronic records management.
- 6.2.2. The system must support consistency between paper, electronic and hybrid records.
- 6.2.3. The system should enable the transitioning of document from its live status to

the record stage. *Therefore, the system should cater for the following capabilities/functionalities:*

- 6.2.3.1. Automation of NARSSA approved file plan.
- 6.2.3.2. Application of the retention schedule.
- 6.2.3.3. Application of information classification schedule.
- 6.2.3.4. Support the filing of the records until the disposal or archive stage.
- 6.2.3.5. Provide filing support to emails (with its attachment) as records.
- 6.2.3.6. Provide filing support websites as records.
- 6.2.3.7. Support records that have been scanned and or captured via multifunctional devices (MFP).
- 6.2.3.8. Support and enable functionality to perform back scanning and continuous bulk scanning of records.
- 6.2.3.9. Capability to scan various document sizes.

6.3. Integration ability to integrate with other systems:

The system must provide ability to integrate with other systems in order to allow for information to be exchanged thereby maintaining data integrity and documents to be linked to their system objects or transactions.

6.3.1. Digital video and voice recordings:

- 6.3.1.1. Provide support management and preservation of voice recordings including indexing and classification of voice recorded meetings.
- 6.3.1.2. Provide support management and preservation of audio and video recordings.
- 6.3.1.3. Geographic Information System (GIS).
- 6.3.1.4. Store all versions of the port plans and drawings for all ports using digital tools such as Virtual Reality Enablement / Augmented Reality (AR).

6.4. Image processing:

6.4.1. The solution must have the capability for the indexing, classification, storage and retrieval of digitally recorded images such as:

- 6.4.1.1. Drawings
- 6.4.1.2. Maps

- 6.4.1.3. Plans
- 6.4.1.4. The system should enable capturing and maintenance of digital documents that bear the digital signatures or digital watermarks.
- 6.4.1.5. Support and recognize documents that have optical character recognition (OCR), barcoding, electronic /digital signatures. etc.:

6.5. Knowledge Management:

- 6.5.1. The system should enable reporting facility that shows movement of data within various repositories especially activities and tasks (e.g. teams), allowing collaborations and knowledge sharing but considering the accountability and compliance. Therefore, the system should allow creation and closing of team workspaces with assignment of responsibility for capturing the results of the collaborative effort for preservation within the repositories.
- 6.5.2. Create a central location to capture best practices, share information, and promote standardized TNPA processes, whereby staff can capture and share collective team knowledge. *Therefore the system should enables:*
 - 6.5.2.1. Tracking updates and information with alerts.
 - 6.5.2.2. Capturing TNPA knowledge (institutional memory).
 - 6.5.2.3. Using surveys or discussions to gather information or encourage dialogs.

6.6. Search and retrieval functionality:

- 6.6.1. The system must provide the ability to search on the content or text of documents and records (full text retrieval) using natural language queries.
- 6.6.2. This functionality must also support retrieval of documents on specific words or concepts and must include the use of Boolean operators (and or not etc.).
- 6.6.3. The system must provide the ability to browse the File Plan where documents are aggregated based on metadata or other representation.
- 6.6.4. The system must provide the functionality to search on metadata elements and combinations of metadata elements (title, author, date and or type of records and documents etc.).
- 6.6.5. The Electronic Documents and Records Management System must provide the functionality to display all electronic documents irrespective of its formats.

6.7. Risk Management Requirements:

- 6.7.1. The preferred bidder must provide the electronic document and records

management system security model. The model must have the functionality that has access to documents linked to TNPA departments and persons. It must also make allowance for complex security in relation to electronic documents.

- 6.7.2. Security must address the maintenance of access and integrity of information while minimizing the risk of loss, corruption, and unauthorized access.
- 6.7.3. The system must also allow the administrator to limit access to documents, files, and metadata to specified users or user groups. It must also be possible to assign certain security rules to specific document types.
- 6.7.4. The system must always prevent the deletion of an electronic record or any part of its contents, with the exceptions of retention schedule.
- 6.7.5. Deletion by an authorised Records Administrator as part of an audited procedure.
- 6.7.6. In line with the retention matrix, the system must provide a function that specifies retention schedules, automates reporting and destruction actions, and provides integrated facilities for exporting documents and metadata.
- 6.7.7. Provide notification to the administrator when retention period is due.
- 6.7.8. Be capable of associating a retention schedule with the classification scheme.
- 6.7.9. The systems should track all digital records, recording the movement of all copies in the audit log.
- 6.7.10. Track records through changes of custody of records keepers e.g., when there are organizational changes and functions.
- 6.7.11. Authorization framework aligned to Transnet security standards and procedures.

7. TECHNICAL REQUIREMENTS

- 7.1.** The preferred bidder should allow configuration to streamline business processes for end users by integrating with other systems and allow implementation of security majors (such as the Information and Cyber Security).
- 7.2.** The conversion or migration of records should be done without compromising the record in anyway and format (which includes digital authenticity, reliability, integrity, and usability records)/ there should be adherence to international standards of document and information management.
- 7.3.** The system should allow vertical and horizontally scalability.
- 7.4.** The system should allow integration with other systems without compromising the

authenticity of the record. *Integration with business systems such as:*

- 7.4.1. SAP ERP / S4/HANA
- 7.4.2. SAP CRM
- 7.4.3. Microsoft (SharePoint, emails & One-drive)
- 7.4.4. Engineer's systems
- 7.4.5. Security systems
- 7.4.6. IPMS
- 7.4.7. SAP HCM
- 7.4.8. UNIFIER

7.5. Backup and Disaster Recovery:

- 7.5.1. The successful bidder must propose backup and restoration capabilities based on the TNPA's backup and storage strategy.
- 7.5.2. The successful bidder must also perform error and omission-free backups with Transnet's 7-year data retention requirements.
- 7.5.3. The successful bidder shall provide on demand evidence of disaster recovery and back up testing during the project life cycle.

8. ADDITIONAL REQUIREMENTS

8.1. Integration with Microsoft SharePoint and Office 365:

Licenses for Microsoft 365 including SharePoint maybe required. Therefore, successful bidder may opt to use SharePoint functionality where feasible and then add additional functionality if required using add-on products. Since integration with SharePoint is included in the solution, adoption and Change Management of SharePoint will form part of the solution. Design and configuration of SharePoint sites, libraries, metadata and records management compliance and policies must form part of the solution.

9. NON-TECHNICAL SCOPE

9.1. Skills Transfer and Documentation:

- 9.1.1. The appointed Service Provider is required to do skills transfer to Knowledge Management Team personnel. The required skills are but not limited to:
- First-line functional support
 - First-line technical support
- 9.1.2. Service provider to ensure that user manuals including handover documents for all tasks or deliverables for this project are available and handed over to the project owner at the end of the project.
- 9.1.3. The potential bidder will be required to ensure that all the existing documents or records are populated into the desired repository. The number of resource allocation will be determined by size of the Port as well as the volume of records.

10. CONTRACT STARTING DATE

Please note that TNPA requires the successful bidder to be fully operational to commence once the tender is awarded.

11. DELIVERABLES

- 11.1.** Configure and implement records classification systems for the capture and management of records.
- 11.2.** Develop appropriate retention schedule.
- 11.3.** Retrieval and easy access to records.
- 11.4.** Credibility and reliable records.
- 11.5.** Procedures to manage the storage, transfer and disposal of records.
- 11.6.** Skills transfer on EDRMS functionality.
- 11.7.** Security and maintenance of electronic records.
- 11.8.** Compliant Electronic Documents and Records Management System.
- 11.9.** System integration.
- 11.10.** System testing.
- 11.11.** Backup and recovery.