

Document Title	USER REQUIREMENT SPECIFICATION REPLACEMENT OF STORAGE AREA NETWORK (SAN)
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APPROVAL & DISTRIBUTION

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REVISIONS

This document has been revised in accordance with the following schedule:

Rev. No.	Date approved	Nature of Revision	Prepared
0	See title page	First issue	M BEYTELL

1 PURPOSE AND SCOPE

The purpose of this URS is to specify the details of the current storage system (Fibre channel SAN) environment that have reached its end of life cycle and is due for replacement. The tender FBD-SCM-2022-TEN-0007 are for proposals to replace this storage area network system with similar technology.

The current used storage system has the capacity of 80TB. The proposal for the new hardware is to replace the two system units in the two sites with one system having 1 x Fibre channel SAN Hardware unit with at least 128TB storage capacity. The storage area network must provide for capacity growth. Migration of the current virtual volumes must be achieved without disruption of current storage system.

At the completion of the migration of virtual volumes and servers to the new storage system, the new system should be on its own fabric and not be connected to the old storage area network.

2 REFERENCES, ABBREVIATIONS AND DEFINITIONS

This document is based on the latest current edition of the references listed below:

- [1] N/A
- [2] N/A

This list contains the abbreviations and definitions used in this document:

ABBREVIATION / ACRONYM	DEFINITION
URS	User requirement specification
SFF	Small form factor
SAS	Serial attached SCSI
SFP	small form-factor pluggable module
FC	Fiber Channel
CPG	Common provisioning group
HDD	Hard disk drive
SAN	Storage area network
HBA	Host bus adapter
Product	Output of an organization that can be produced without any transaction taking place between the organization and the customer
Risk	Effect of uncertainty
Efficiency	Relationship between the result achieved and the resources used
Effectiveness	Extent to which planned activities are realized and planned results are achieved

3 RESPONSIBILITIES

The following are assigned responsibilities within this document:

- The PROCESS OWNER or MANAGER shall establish the procedure to ensure process steps and activities are documented correctly.
- TEAM LEADERS and SUPERVISORS shall implement and maintain the procedure, identify gaps and take appropriate action to ensure compliance.
- EMPLOYEES shall adhere to the requirements as set out in this document.

4 USER REQUIREMENT SPECIFICATION

- Proposal required for the replacement of storage area network hardware, is to provide the Necsa datacentre the same or better functionality as current systems with continued operation.
- All physical servers are equipped with built-in HBA adapters that connect to storage area network via fibre optic cable with fibre channel protocol, one or dual paths and zoning configured on fabric level via switch zoning.
- Storage required is 128TB with the ability to add additional storage easily and provide full redundancy in event of failures.
- New storage unit must be in its own 42U rack with build-in PDUs, power connections and be able to connect to a 32amp isolator.
- 38 hosts need to be migrated to the new storage environment from a local unit and a remote unit this includes the physical fibre cabling within the same server room with 15-meter fibre patch leads as well.
- 80 virtual volumes need to be migrated to the new environment CPGs used are RAID 1 and RAID 5
- Install and services required together with a migration plan and timelines must be included in proposal.
- System must have a fully integrated management console to be able to create hosts, virtual volumes, volume groups and present or export volumes to hosts or multiple hosts or virtual infrastructure like VMware via WWN of HBA's on physical servers, also to be able to edit virtual volume sizes to extend or grow presented volumes on hosts.
- System must have 24/7 5 year hardware support.
- Handover must include basic training for system administrators.

5 LIST OF FORMS

No forms are required for the implementation of this document.

6 RECORDS

The following records are generated through the implementation of this document and are controlled in accordance with the relevant procedure.

RECORD	PROCESS OWNER	LOCATION	RETENTION PERIOD
Record Title	Job Title: SIM	SIM Records	5 years