

“An Intelligent Methods for enhancing the archiving and registration system at Mutah University”

1. SPARC Servers: Qty (2)

Processor	Minimum 2 SPARC RISC Socket
Cores	Minimum 8 Cores per Processor Socket
System architecture	SPARC V9 architecture, ECC protected
Memory	<ul style="list-style-type: none"> - At least 256GB - 16/32 and 64GB DIMMS must be supported
Interfaces	<ul style="list-style-type: none"> - At least 3 PCIe 3.0 - Four 10GBase-T Ethernet ports, full duplex - Two Dual 16Gb/s HBAs (SFP+ installed) - One Management/serial port - One 1000Base-T
Internal storage	<ul style="list-style-type: none"> - One 12 Gb/sec SAS-3 controller - At least 4 SAS-3 hard disk drives - Total not less than 1.8 TB after applying RAID 5
Power Supplies	<ul style="list-style-type: none"> - Two hot-swappable AC power supplies, Voltage 200 to 240 VAC, frequency 50/60 Hz - Two hot-swappable Fans.
Operating system	64-bit Unix with all required patches.
Virtualization	<ul style="list-style-type: none"> - Built-in Oracle VM Server for SPARC. - All cores should be licensed for virtualization without any limitation.
Rack	Must be Rack mountable in standard rack with all required mounting kit.
Warrant & Support	At least 5 years of warranty
Training	Local certified training (in Jordan) is preferred. However, if it is not available, bidder may offer two alternate options (local uncertified training, and certified training (outside Jordan).
Others	All required hardware components, softwares, cables, tools or licenses should be provided.

2. SAN Storage: Qty (2)

Architecture	<ul style="list-style-type: none"> - All-in-one (dual controllers, internal drive bays, networking) - The proposed storage solution should have full redundancy and have no single point of failure. - Storage System must support 200 disks drive without adding or changing the controllers -Storage system should support replication sync/async
Power Supplies	<ul style="list-style-type: none"> - Two hot-swappable AC power supplies, Voltage 200 to 240 VAC, frequency 50/60 Hz - Two hot-swappable Fans.
Controllers	2 hot-swappable per chassis (Dual active)
Processors	At least (1.7GHz, 6 cores) (Dual active)
Memory	A least 32GB (16GB per controller)
Storage media	<ul style="list-style-type: none"> - Support SSD, SAS and NL-SAS drives - Support 15K, 10K RPM SAS HDD - Support RAID 1/10/5/6/0 RAID.
Usable capacity	<ul style="list-style-type: none"> - 9 TB SAS 15K disks Raid 5 - Hot spares should be provided
Interfaces	<ul style="list-style-type: none"> - 10 Gbe Ethernet (support 10Gb connections, no ports required for now) - 12 Gb/s SAS (Back end Connectivity) - 4x 16Gb FC (SFP+) - One Management/serial port
Operating System	Windows 2008/2012/2016 and later, Redhat Linux, Suse Linux, HP-UX, IBM AIX, Solaris OS and VMware without any need for any license add-up in future.
Supported Features	<ul style="list-style-type: none"> - Snapshot and clone. - Thin provisioning - QOS Quality of service - Compression - license must be covered the max of storage capacity
Workload support	<ul style="list-style-type: none"> - Support all types of common applications and platforms with an intermix of any workload type environments: OL TP and Sequential. - MS Exchange, Oracle DB, and SOL DB environments
Manageability	<ul style="list-style-type: none"> - Web or GUI based Management and reporting software supporting local and remote administration - The management a software should provide the capability to manage the storage array. - Management Appliance or server should be provided if required. - Management software should provide easy steps, and advanced monitoring functions.
License	License should include support for Active clusters on UNIX, Windows, Linux, and VMware Storage system must be ready to connect to the maximum number of hosts supported by the storage.
Rack	Must be Rack mountable in standard rack with all required mounting kit.
Origin	America, Europe, or Japan
Others	All required hardware components, softwares, cables, tools or licenses should be provided.
Warranty & Support	Five years mother company and local support

3. SAN Switches: Qty (2)

Origin	America, Europe, or Japan
Architecture	Support 24 FC ports 16 Gb/s
Installed SFPs	12 FC ports active 16 Gb/s (licensed and SFPs installed)
Type	Must be Rack mountable in standard rack with all required mounting kit.
Others	<ul style="list-style-type: none"> - Redundant hot-swappable power supplies - Web or GUI based Management software supporting local and remote administration - The management software should provide the capability to manage the SAN Switch. Management Appliance or server should be provided if required.
Warranty	5 years mother company warranty

4. Installation and configuration:

- All hardware components installation and configuration including installation of operating systems must be included.
- Database Migration and upgrade to 12C Release 2 is required with support for the database for at least one month after the whole process end (application migration is not required).
- Reconfigure current environment to work as test database maintaining current architecture.

5. Support for current (old) Equipment (3 Years):

Item	Qty
VNX5300 DPE 15x3.5 Storage	1
SPARC T4 8-core 2.85GHz, 16GB, 2x300GB HDD, Solaris 11	3
SUN SPARC Enterprise M4000 Server	2
4GB Fiber Card (for M4000 Servers)	4

General Information:

- Current Environment:
 - o Two Oracle database servers (RAC).
 - o OS: Sun OS 5.10 64bit
 - o DB: 10g R2 Ent.
 - o Database size: 45GB

General specifications:

- The provider of items must be:
 - o Authorized distributor for all Components.
 - o Familiar with same projects, and have reference list for similar big projects.
- Subcontractor is not accepted without University Approval.
- All solution should be as built drawing and documentation.
- Associate level training must be conducted by a learning partner of the vendor to two persons prior to the deployment of the system.
- All provided training shall be conducted by a certified training center by the vendor, and shall include the training material for the provided courses.
- As per awarding of the tender, the total price amount will be divided to multiple payments as the following:
 - o First payment: Servers and softwares delivery
 - o Second payment: installation and configuration
 - o Last payment: Full project delivery.
- Each payment will have a due date, such that the payment will be placed based on the progress but not before the due date.