

Item : All Flash Storage Array Quantity (1) High quality brand name USA or ECC or Japan (manufactured and assembled) with the following minimum specifications:	
Features	Required specifications
Storage architecture	All Flash Storage (Hybrid storage is not acceptable) Dual Redundant RAID controllers Main components are redundant and hot-pluggable, such as controllers, power supply units, cooling fans and hard disk drives End to End SAS III technology
System Cache	128 GB Cache build in controllers distributed over two controllers.
Operating system	Microsoft windows, RED Hat Linux, Oracle Linux, VMware, Solaris and AIX.
Host Interfaces	4x 16Gb/s FC Ports Total scalable up to 8 Ports over two controllers
Support Protocols	16Gb FC Protocol is mandatory. Must Support iSCSI for future needs (Not Active).
Support drive	ONLY SSD Drives or FLASH Drivers
Required RAW capacity	26 x SSD 1.92TB DWPD1
RAID supported	RAID 0,1,10,5,6
Cables	All required cables should be provided
Manageability	Management software using Web or GUI support local and remote administration. Management SW must be able to provide Online reports for performance, capacity, IO, and keep logs for at least 30 days
Features	<ul style="list-style-type: none"> • The storage must include the licenses to support the maximum number of HDD & Capacity without a need of additional license in case of adding HDD and shelves in the future. • Support for active cluster on UNIX, windows, Linux and VMware • The storage must include the licenses to connect to the maximum number of hosts supported by the storage. • Storage must support the following features license must be included for full capacity: <ul style="list-style-type: none"> ○ Thin Provisioning. ○ Snapshots & Snap Cloning. ○ Storage Mirroring /Replication through IP/FC Must support FC/IP Synchronous / Asynchronies without the need of additional Hardware. ○ Prefer to support replication to lower/higher storage from same Vendor. • Storage Must support Storage Cluster /Transparent Failover without the need of additional hardware layer(Licenses is not required for time)
Warranty	3 years (parts and Labor) onsite warranty from manufacturer(Prove must provide)

Installation & Migration Fees:

All data Migration from the existing Fujitsu DX 100 S4 SAN storage to the new SAN storage is the bidder responsibility, including and not limited to Data Base Migration, Virtual Machines and Hyper-V Cluster Migration, replication and implementation, Installation & Configuration fees, with high-level implementation Project Plan, Project Methodology & approach and period for every activity, are the bidder responsibility. In addition, moving the Old SAN Storage FUJITSU ETERNUS DX 100 S4 to the DR Site with all needed preparation and Configuration to ensure All Replication is working smoothly from the new SAN storage to DR SAN Storage

Special Conditions & Scope of Work

- The project is about replacing the current Main SAN Storage in MOL with New Scalable and latest technology SAN Storage to deliver business- critical applications and services in MOL, through Migrate all the existing Database & Applications to the new SAN Storage.
- Bidder should provide full installation and configuration for all the newly proposed components.
- Migrate all the data from the Old Storage into the newly proposed items is the Bidder responsibility and Moving the Old SAN Storage FUJITSU ETERNUS DX 100 S4 to the DR Site with all needed preparation and Configuration to ensure All Replication is working smoothly from the new SAN storage to DR SAN Storage.
- Migrate all the data (OS, Software and Data Base) from the Old Storages and Servers into the newly proposed items is the Bidder responsibility.
- Test and insure that all the services are up and running and work without any issues is the Bidder responsibility.
- Bidders must have an excellent experience in such environment, a complete Company profile.
- The Bidder must have at least 3 Certified Technical persons in the proposed Products (Documents must be included in Bidder proposal).

- The design must grantee highest levels of availability and responsiveness for all applications and services through:
 - Failover protection against hardware and operating system failures within the virtualized environment.
 - Minimizing Downtime from server and Operating system Failures.
 - Protect Applications Regardless of operating system or underlying hardware.
 - Monitors virtual machines to detect operating system and hardware failures

- The bidder must provide MOL with detailed implementation plan for the solution.
- The bidder must provide MOL with a complete testing plan for the Virtualization cluster and failover of virtual servers.
- It is the bidder responsibility to provide MOL with any missing hardware components and software license required for the solution **(Turn Key solution) and One Lot Tender.**

<u>Training:</u>
1- Onsite and administration Training:
Bidder must provide onsite training & Onsite Knowledge transfer for Hardware Installation and software configuration for MoL support staff team.
Administration Course: Including Manage for The SAN Storage Product.
Course must focuses on installation, configuration, and management of the suggested for (2 persons).