1. **Number of ESXi servers**:

There should be 4 ESXi servers to ensure HA and the capacity to accommodate VMs if one server fails.

1. **RAM and CPU for each ESXi server**:

Server 1: will have 1,382 Gb of RAM and 2 CPUs with 20 Cores Each.

Server 2: Will have 1,382 Gb of RAM and 2 CPUs with 20 cores Each.

Server 3: will be the failover for server 2 will have 1,382 Gb of RAM and will have two CPUs with 20 Cores Each to accommodate if server 2 fails.

Server 4: will be the failover for server 1 and will have 1,382 Gb of RAM and will have 2 CPUs with 20 cores each to accommodate if server 1 Fails.

1. **What server internal components have redundancy for HA.**

Each Server will have dual hot-swapable power supplies. Along with Dual NICs configured for load balancing and failover. There will also be Two SSDs in RAID 1 configuration for ESXi. There will also be redundant fans to prevent overheating.

1. **What VM will be assigned to what ESXi server to begin with. vMotion will eventually change this, but you need to state what VMs are installed on what ESXi servers to begin with:**

ESXi server 1 VMs:

Domain Controller 1

SQL Cluster

File Server 1

HR system

POS Cluster 1

ESXi Server 2 VMs:

SQL Cluster 2

File Server 2

Custom Data Base Server

POS Cluster 2

Gas Tank Monitoring

1. **How ESXi servers will connect to the new SAN(s) i.e. - fiber optics, Fiber Channel, iSCSI, or CAT6 copper:**

The servers will connect to the SAN(s) by iSCI

1. **Storage capacity of SAN(s) and how many SANs will be needed:**

There will be 2 SANs for redundancy and each SAN will have a total of 500Tb of Storage to accommodate for future growth.