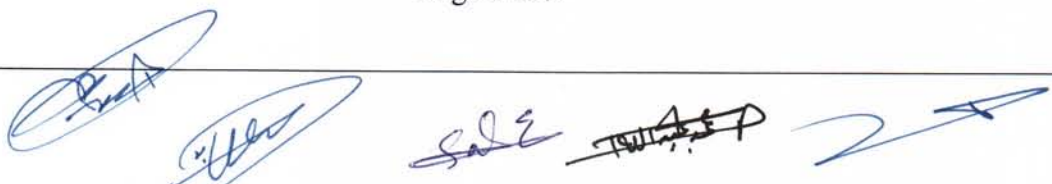


# مشروع الحكومة الالكترونية

11

The bottom of the page features several handwritten signatures and stamps in blue ink. From left to right, there is a circular stamp with a signature inside, followed by another circular stamp with a signature. To the right of these are several lines of signatures, including one that appears to be 'سليمان' (Sulaiman) and another that is partially obscured by a stamp. The signatures are written in a cursive style.

## Blade Server Specification

### 1. Blade Chassis:

- 1.1. Blade chassis shall be 19" Electronic Industries Alliance Standard Width rack mountable and provide appropriate rack mount kit.
- 1.2. Blade chassis shall support at least ten 1 height unit (1U) hot swappable Blades.
- 1.3. Blade chassis shall be shipped with all cables and parts required to attach all included peripherals to other blade chassis as required for normal operation (e.g. power cords, keyboard / mouse cables, video cables, network and internal disk cables).
- 1.4. Blade chassis shall provide a device capable of reading a DVD disc or provide an alternate way of installing operating system and applications software and performing firmware upgrades. This device shall be dynamically re-configurable and assignable to any one of the blades in the chassis for the purpose of transferring data to and from the DVD disc to and from the blade.
- 1.5. The Blade Chassis power supply shall be provide full redundancy (N+N) and operate at a nominal input voltage of 200VAC to 240VAC and with a power rating that supports a fully loaded system running at a 100% duty-cycle 24 hours a day, 365 days a year. A fully loaded system is defined by this specification as:
  - 1.5.1. All expansion slots and ports are populated with devices certified for operation in said system by the system Vendor.
  - 1.5.2. The aforementioned power requirement is to be fulfilled without modification to said system, peripherals or power supply. The aforementioned requirement(s) apply equally to systems with a single power supply configuration, as well as a system with an online fail-over power supply configuration. Failure to meet these requirements, to the letter, will void any contract.
- 1.6. Blade chassis shall be configured with redundant power functionality to mitigate risk of internal power loss (N+N).
- 1.7. Blade chassis shall be configured to provide full power to all blade slots whether the blade slots are populated at time of initial acquisition or not.

- 1.8. Blade chassis shall be configured with the necessary modules and/or controllers to enable specified blade functionality with full redundancy.
- 1.9. Blade chassis shall be configured to provide full redundant cooling to all blade slots whether the blade slots are populated at the time of initial acquisition or not.
- 1.10. Blade chassis shall be configured to provide KVM capability from an external keyboard, video monitor and mouse to all blades installed in the chassis – one blade at a time.
- 1.11. Blade chassis shall provide a redundant chassis and blade management capability through any one or a combination of firmware, software and hardware. Chassis and blade management shall be accomplished through a web interface.
- 1.12. Blade chassis and blade management capability shall monitor the chassis and blades for failure for report to an administrator and for logging to an event log.
- 1.13. Blade chassis and blade management shall provide a capability for firmware upgrades.
- 1.14. Blade chassis and blade management shall provide a capability for configuring all configurable hardware (e.g. modules or controllers) in the blade chassis and all configurable hardware in all installed blades.
- 1.15. Blade chassis shall support all Wake-on-Lan (WoL) and Preboot-eXecution Environment (PXE) enabled products.
- 1.16. Blade chassis shall provide a redundant GB Ethernet pass through switch module
- 1.17. Blade chassis shall provide a redundant 24x port 1Gbps Ethernet Switch with advanced Layer 2/3 and stacking capabilities
- 1.18. Blade chassis shall provide a redundant SAN Switch that support for up 24 ports and support for both 8/4 Gb Fiber channel switching mode. Each SAN Switch should be included eight pre-installed 8Gb SFP+ transceivers
- 1.19. Blade chassis shall provide a Complete management solution with media kit
- 1.20. Vendor shall provide documentation of or reference to information published on the internet documenting compliance with requirements 1.1 through 1.19.



**2 Blade:**

- 2.1 Each blade shall have two (2) CPUs.
- 2.2 The Blade CPUs shall be Intel Xeon Processor X5600 series with 12MB Cache 1333MHz.
- 2.3 The blade shall be WoL and PXE capable.
- 2.4 The blade shall be hot swappable.
- 2.5 Vendor shall provide documentation of or reference to information published on the internet documenting compliance with requirements 2.1 through 2.4.

**3 Blade Memory:**

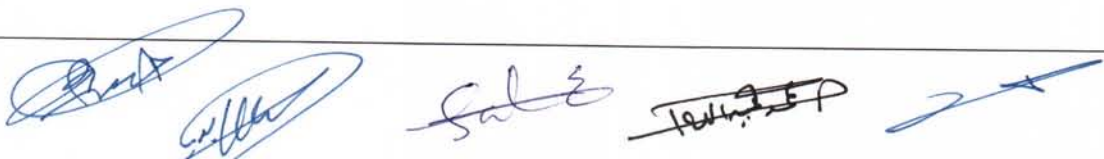
- 3.1 Blade shall contain a minimum Random Access Memory of 24GB DDR3 1333MHz and can be expanded to at least 32GB without requiring replacing the initial memory.
- 3.2 Blade Random Access Memory (RAM) shall include an error correcting (ECC) feature.
- 3.3 Vendor shall provide documentation of or reference to information published on the Internet documenting compliance with requirements 3.1 through 3.2.

**4 Blade Network:**

- 4.1 Each blade shall provide dual integrated network controllers with IPSec, 10/100/1000 Mbps Ethernet bandwidth, auto-negotiating, load balancing, and fail over capabilities.
- 4.2 Vendor shall provide documentation of or reference to information published on the internet documenting compliance with requirements 4.1 through 4.2.

**5 Blade Media Internal/External Storage:**

- 5.1 The blade server shall support all capabilities of Tier-1 manufactured fiber-channel host bus adapters to accommodate Tier-1 manufactured SANs (Storage Area Networks) devices.
- 5.2 The blade shall have two (2) internal 300GB 10K 6Gbps SAS 2.5" hot-swappable disks to support software mirroring.

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- 5.3 Vendor shall provide documentation of or reference to information published on the Internet documenting compliance with requirements 5.1 through 5.2.

**6 Graphics / Monitor:**

- 6.1 The video monitor shall be at least 17" flat, 1U rack mount with keyboard and mouse (LCD KVM).
- 6.2 Vendor shall provide another 8 port KVM switch (1U) to connect to integrated KVM in Blade Chassis and other servers.
- 6.3 Vendor shall provide documentation of or reference to information published on the Internet documenting compliance with requirements 6.1 through 6.2.

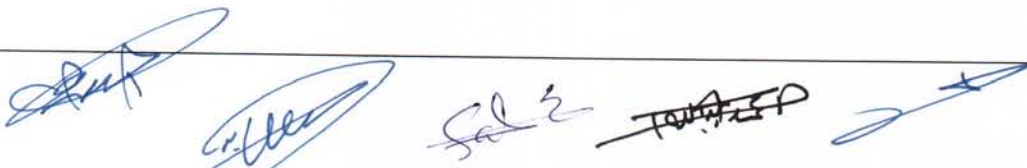
**7 SAN Storage:**

To simplify storage administration and add flexibility tender should be provide SAN storage with the following specifications:

- 7.1 Fiber channel SAN with 10 TB of storage, Fiber channel drivers with 15K RPM configured to provide maximum performance.
- 7.2 SAN cache shall be at least 4GB.
- 7.3 SAN shall be upgradable to 20TB without replace the disks.
- 7.4 SAN shall support Virtual provisioning feature
- 7.5 SAN network shall be support 8 Gbps Fiber channel with full Controllers redundancy to connect to blade enclosure.
- 7.6 Each SAN controller shall include four pre-installed 8Gbps SFP+ transceivers
- 7.7 SAN shall provide a complete web management solution.
- 7.8 SAN shall be rack mountable and provide appropriate rack mount kit
- 7.9 Vendor shall provide documentation of or reference to information published on the Internet documenting compliance with requirements 7.1 through 7.9.

**8 Tape library:**

- 8.1 Tape library shall be support LTO4&5
- 8.2 Tape library shall be containing at least 16 slots.
- 8.3 Tape library shall be include fiber channel (FC) controller with necessary transceivers to connect to Blade SAN switch.
- 8.4 Tape library shall provide a complete web management solution.
- 8.5 Tape library shall be rack mountable and provide appropriate rack mount kit



8.6 Vendor shall provide documentation of or reference to information published on the Internet documenting compliance with requirements 8.1 through 8.6.

**9 Tape media**

9.1 LTO5 Tape Cartridge 1.5TB/3.0TB

9.2 Tape cleaner.

**10 Backup software:**

10.1 Symantec Backup Exec 2010 with ability to take backup directly from MS SQL server database and support backup for virtual environments and Exchange Server.

**11 Blade Operating System :**

11.1 Each Blade shall be offered with version of Microsoft Server 2008 R2 Enterprise 64 bit with two years software assurance compatible with the offered blade hardware. Media (DVD) and documentation shall be provided for OS software.

**12 Virtualization:**

12.1 VMware vSphere 4 Enterprise plus for 1 processor License.

12.2 VMware vCenter Server 4 Standard for vSphere License (includes Orchestrator and linked Mode).

12.3 Production Support for VMware vSphere 4 Enterprise plus for 1 processor.

12.4 Production Support for VMware Vcenter Server 4 Standard.

**13 Rack:**

13.1 Rack shall be at least 42U with capabilities of installing the Blade chassis.

13.2 Rack shall be shipped with all accessories and parts required for normal operation (e.g. power PDU, fans, cables management kit).

**14 Personal Computer**

14.1 Brand name

14.2 Processor Core™ i5-750 2.66 GHz(8MB)

14.3 RAM 4 GB DDR3 pc3 1333MHZ

14.4 H.D.D 500 GB SATA3 7200 rpm

14.5 DVD+/-RW SuperMulti

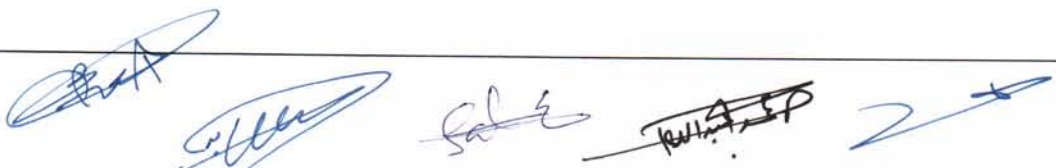
14.6 Monitor 19" LCD

14.7 Graphics card ATI Radeon HD4650 (1GB)

14.8 USB( Keyboard, Optical Mouse)

14.9 Network card 10/100/1000 NIC

14.10 Windows 7 ultimate 64 bit (original).





## 15 Switches

### 15.1 Layer 3 Switches ( 2 Switches )

- 24 ports Ethernet ( 10 /100/ 1000BaseT)
- 4 SFP Gigabit Ethernet ports
- Fixed, Rack Mountable fixed-configuration, Multilayer switch
- Provides full IPV6 dynamic routing ( IPv6 provided )
- DRAM at least 128 MB
- Backplane capacity : at least 30 Gbps

### 15.2 Layer 2 Switches ( 2 Switches )

- Manageable Switch
- 24 Ethernet 10/100/1000 ports, 4 of which are dual-purpose (10/100/1000 or SFP)
- Rack-mountable - 1U
- Standard Memory 64 MB

## 16 Cables and SFP transceivers

- 16.1 LC-FC single mode 20-meter Fiber optical Cable (2 cables)
- 16.2 LC-LC single mode 1-meter Fiber optical Cable ( 2 cables )
- 16.3 SFP single mode LX LH 1000Base SFP ( 8 SFP )

## 17 Software

- 17.1 Exchange server 2010 enterprise edition SNGL OLP
- 17.2 Exchange Server 2010 Enterprise CAL
- 17.3 MS SQL Server 2008 R2 enterprise edition
- 17.4 MS SQL Server 2008 enterprise CAL
- 17.5 Managed Antivirus for windows 2008 server with administration kit that can be worked in virtual environments
- 17.6 Network monitoring software: GUI Software to monitor servers, applications, manageable switches, routers, firewall for 50 devices and doing the following:
- Discover devices on our network and add them to the database for monitoring.
  - Set up notifications to alert us when a problem is found.
  - Generate out-of-box reports to help us analyze our network up time, and response time.

- The software should support the Syslog, SNMP, Telnet, ping, tracert, WMI monitoring (including monitoring of Microsoft Exchange and SQL Server), send alert via SMS mobile system, etc.
- 17.7 DotNetNuke professional edition with software assurance.

**18 Training:**

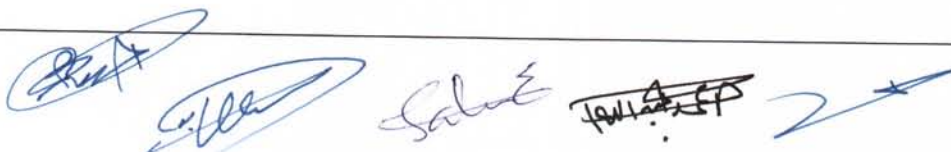
- 18.1 Training must be outside in authorized center (must mention the country and the name of the institute).
- 18.2 Training must be in the following courses:
- Group 1:( 4 persons):
- 18.2.1 Vmware vSphere (Install, configure, Manage)
  - 18.2.2 Vmware vSphere Troubleshooting.
  - 18.2.3 VMware vSphere Manage for Performance
  - 18.2.4 VMware vSphere Manage and Design for Security
  - 18.2.5 SAN storage configuration and management course.
- Group 2 :(3 persons):
- 18.2.6 Visual Studio 2010: MCPD Web Developer
  - 18.2.7 Web Content Management Systems course

**19 Warranty:**

- 19.1 All hardware components associated with this contract shall have a minimum 3 years warranty that shall go into effect at the time of installation by the provider. By definition, "all hardware" consists of the blade chassis and the blades therein and its internal components (cards, disk drives, power supply, etc.), monitor, keyboard, and cables, SAN, Tap library, etc.
- 19.2 The warranty shall provide 24 x 7 phone and web technical support for vendor supplied hardware and software, utilities and drivers.
- 19.3 The warranty shall provide next business day on-site parts and labor maintenance performed by factory trained, authorized technicians for three full years.
- 19.4 During the warranty period, the contractor shall be responsible for all repair costs associated with the hardware equipment, except where there is evidence that the Government physically abused the equipment.

**NOTE:-**

**The bidder should provide the unit price of all components**





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