

**المواصفات الفنية الخاصة بالمناقصة العامة**

**رقم المناقصة : (٢٠١١/٥٠)**

**الخاصة بشراء وتوريد وتركيب وتشغيل سرفرات**

**وملحقاتها مع التدريب**

**المؤسسة العامة للاتصالات السلكية واللاسلكية**

**الإدارة العامة للمشتريات والمخازن**

**إدارة المشتريات - قسم العقود والمناقصات**

الكميات والمواصفات الفنية لسيرفرات الفوترة + الاستضافة + مراقبه  
 وادارة الشبكة + DNS + اجهزة تخزين بيانات مع التدريب والخاصة بالادارة العامة  
 للانترنت وتراسل المعطيات- ادارة الانترنت

### High Level Requirement:

ITEMS	Quaintly	Comments
Billing Servers: -	4	Rack Mount
Network Management Servers	3	
Blade Chassis	1	
Hosting Servers :Blade Servers	3	
DNS Servers	2	Model has been specified according to ICANN recommendation
SAN Switch	3	1 is optional
SAN Storage	1	
Laptops	5	
Desktop computers	10	
Additional Software	lot	
Training	7	
Cables and Accessories	lot	
Additional equipment		
Installation and commissioning	For all Hardware and software	
Warranty	At least one year	

### Technical Specifications:

#### 1-Billing Servers:Four Servers - Rack Mount

Item	Specifications
Processor	2x Intel Xeon Multi Core (minimum 6 core, 2.00GHz, 18M cache), 6.40 GT/s QPI, x64 servers or equivalent
Memory	64 GB Memory installed , 1066MHz, Single Ranked RDIMMs for 2 Processors, Max Memory 192 GB
Hard drive	3 x 146GB 15K RPM Hotplug Hard Drive
Raid controller	Internal raid controller 512 MB support all raid technology or equivalent
External Controller	2x FC 4 or 8 Gbps HBA, PCI Express
Network card	Dual Two-Port Embedded Gigabit Ethernet Controllers)
Power supply	AC Redundant power supply
DVD	DVD-RW Drive Internal
Hardware warrantee	At least 2 Years (warrantee details (type) shall be mentioned.t

<b>Management</b>	Embedded Management Systems Management Consoles
<b>Rails</b>	Sliding Ready Rails With Cable Management Arm
<b>Accessories and Management</b>	All Servers accessories, kit, Electronic System Documentation, Management DVD Kit with DMC
<b>Operating System</b>	License Windows Server®2008SP2, Enterprise Edition

**Notes:**

- The billing system is working under Windows Server, Enterprise SQL Server.
- The billing servers should be clustered (The bidder shall propose and provide a **clustering solution** that guarantee: High Availability, Reliability, Performance and stability). Putting into account any additional requirement such as but not limited to ( DB licenses....etc.)

**2-Network Management Servers:Three Servers Rack Mount**

Item	Specifications
<b>Processor</b>	2x Intel Xeon Multi Core (minimum 4 core, 2.00GHz, 18M cache), 6.40 GT/s QPI, x64 servers or equivalent
<b>Memory</b>	16 GB Memory installed , 1066MHz, Single Ranked RDIMMs for 2 Processors, , Max Memory 96 GB
<b>Hard drive</b>	3 x 146GB 15K RPM Hotplug Hard Drive
<b>Raid controller</b>	Internal raid controller 512 MB support all raid technology
<b>External Controller</b>	2x FC 4 or 8 Gbps HBA, PCI Express
<b>Network card</b>	Dual Two-Port Embedded ,Gigabit Ethernet Controllers
<b>Power supply</b>	AC Redundant power supply
<b>DVD</b>	DVD-RW Drive Internal
<b>Hardware warrantee</b>	At least two Year warrantee details (type) shall be mentioned.
<b>Management</b>	Embedded Management Systems Management Consoles
<b>Rails</b>	Sliding Ready Rails With Cable Management Arm
<b>Accessories and Management</b>	All Servers accessories, kit, Electronic System Documentation, Management DVD Kit with DMC
<b>Operating System</b>	Windows Server®2008SP2, Enterprise Edition

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### 3- Hosting Servers, Chassis:

#### 3.1- Three Blade Servers

Item	Specifications
Processor	2x Intel® Xeon® L7555 1.86GHz, 24M cache, 5.86 GT/s QPI, Turbo, HT, 8C or equivalent
Memory	32GB Memory (1333MHz) for 2 CPU for Blade x64 Servers
Hard drive	3 x 300 GB 15K RPM Hot Plug Hard Drives
Raid controller	Internal raid controller with 256 MB Cache
Network card	Dual port FC SAN with 2 x 10/100/1000 NIC per Blade
Hardware warrantee	3 Year warrantee
Accessories and Management	All Servers accessories, kit, Electronic System Documentation, Management DVD Kit with DMC
Operating system	License Windows Server 2008 R2, Datacenter Edition licensed to above servers CPUs .

#### 3.b - One Blade Chassis

8 to 10 U modular enclosure holds up at least 10 blade servers
4 to 6 redundant power supplies, hot plug power supplies (N+1)
6 to 9 redundant cooling fan, hot pluggable
Includes CMC (Chassis Monitoring Module)
Redundant Chassis Management Controller (CMC)
Front Control Panel with interactive Graphical LCD, Supports initial configuration wizard, Local server blade, enclosure, and module information and troubleshooting
Two USB Keyboard/Mouse connections and one Video.
I/O Modules providing on demand stacking and uplink scalability.
Integrated keyboard, video and mouse (KVM) switch
Include all accessories kit, Management software (Kit).
Dual GbE 10-port Pass-Thru Network Module. RoHS-5 for the Chassis, 2 pass through NIC port per blades
AC power

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**4-DNS Servers: Tow Servers - Rack Mount**

The model has been specified according to ICANN recommendation:

Item	Specifications
<b>Base Unit</b>	PowerEdge R410 Chassis with up-to 4 Hot-Plug Hard Drives and LCD diagnostics, OEM (224-6500)
<b>Processor</b>	Dual Processor SHIP,PER410,DAO,OEM (330-4510) E5520 Xeon Processor, 2.26GHz 8M Cache, Turbo, HT, 1066MHz Max Mem (317-1206)
<b>Memory</b>	(minimum 16GB, more is better) 16GB Memory (4x4GB), 1333MHz Single Ranked UDIMMs for 1Processor, Optimized (317-2553)
<b>Video Memory</b>	Default minimum
<b>Hard Drive</b>	SCSI/SAS Drives are preferred but not required. 2 x 250GB 7.2K RPM SATA 3.5" Hot Plug Hard Drive (341-8727) HD Multi-Select (341-4158)
<b>Hard Drive Controller</b>	SAS 6/iR Cable, R410 (330-7656)
<b>Hard Drive Controller</b>	SAS 6iR SAS internal RAID adapter, PCI-Express (342-0767)
<b>Operating System</b>	No Operating System (420-6320)
<b>NIC</b>	Broadcom 5709 Dual Port 1GbE NIC w/TOE PCIe-4 (430-3251)
<b>Management</b>	iDRAC6 Enterprise with Vflash (313-8362)
<b>CD-ROM or DVD-ROM Drive</b>	No CD/DVD (313-7833)
<b>Sound Card</b>	Default minimum
<b>Bezel</b>	Brand/Bezel, Hot-Plug Hard Drives, R410, OEM (313-8500)
<b>Raid Config</b>	RAID 1 for PERC/SAS 6ir, PERC H200/H700 Controllers (342-2708)
<b>Rack-mount Feature</b>	Sliding Ready Rails without Cable Management Arm (330-4139)
<b>Power Supply</b>	AC Power Supply, Redundant, 500W (330-4141)
<b>Support</b>	Basic: Business Hours (5X10) Next Business Day On Site Hardware Warranty Repair Initial Year (994-2610)

**5- Three SAN Switch**

SAN swatch minimum 24 port support
8/4 Gb Fibre Channel Switching Module
minimum 8 active ports with SFPs
AC Redundant Power
RoHS-compliant.

**6- One SAN Storage**

Storage array with at least 8GB cache and 8 host ports

Rack-Ready Controller Tray
16 x 600 4Gb 15Krpm FC-AL Drives
2 x redundant AC power supplies and cooling fans
2 x FC ports for expansion trays and 8 x host ports with shortwave SFPs
Management software
4 Domain licenses
Rack Rail Kit
1 year on-site warranty
Include Fiber optic cables 5M

### 7- Laptops: Five Laptops

Item	Specifications
Operating System	Genuine Windows® 7 Professional
Processor	Intel® Core™ i7-620M processor
Graphics Engine	NVIDIA® NVS™ 2100M or equivalent
Memory	4 GB DDR3 1333MHz memory installed
Hard Drive	500GB HDD (7200rpm)
Optical Drive	DVD-SuperMulti drive (+/-R double layer)
Display Size	14.0" to 15.0" widescreen
Display Type	TFT LED Backlit display
Audio	Standard stereo speakers, Headphone jack (stereo), Built-in microphone
Wireless LAN	802.11 a/g/n
Bluetooth	(Optional ) Bluetooth® V2.1 + EDR
Modem	Modem
LAN	Gigabit Network Connection
AC Adapter	75W (15V 5.0A) Auto-sensing, 100-240V / 50-60Hz input
Battery	Li-Ion (55Wh, 6-Cell)
Battery Life	Up to 4 hrs.
SmartCard Reader	1-SmartCard Reader slot
Media	Memory Card Reader
USB Ports & serial Port	1-eSATA/USB (2.0) combo port with Sleep and Charge*, 2-USB (2.0) ports , and one serial port, or equivalent
Security and Protection	Multiple-Level Password Utilities, Password Security, Reinforced Security Cable Lock Slot, HDD Recovery
Software	Include All Drivers and Management Software
Standard Limited Warranty	3-Yr Standard Limited Warranty,
Inputs and Controls	touch pad pointing device, (optional) touch pad on/off, Volume Control (Up & Down

### 8- Desktop: 10 Desktop computers (brand Name)

Item	Specifications
OPERATING SYSTEM	Genuine Windows® 7 Home Premium, 32Bit, English
SERVICE & SUPPORT	1 Year Limited Warranty

<b>PROCESSOR &amp; GRAPHICS</b>	AMD Athlon™ II X4 610e processor(2MB Cache,2.30GHz) + ATI Radeon HD 4270or equivalent
<b>MEMORY &amp; HARD DRIVE</b>	Configures with 4 GB Dual Channel DDR3 SDRAM at 1333MHz - 2 DIMMs 500G/ 1TB - 7200RPM, SATA 3.0Gb/s, 16MB Cache
<b>KEYBOARD</b>	Arabic Desktop Keyboard & Mouse
<b>SYSTEM COLOR</b>	Chassis with AV-input
<b>OPTICAL DRIVE</b>	CD/DVD burner (DVD+/-RW), write to CD/DVD
<b>WIRELESS</b>	(802.11n) WLAN PCI
<b>Network Card</b>	Integrated 10/1000 Ethernet
<b>Power</b>	110-230 v
<b>others</b>	External speakers

### 9- Additional Software required:

- a. Windows Server 2008 R2, Datacenter Edition licensed for (5 CPU).
- b. VERITAS netback up client license for 20 clients
- c. cPanel/WHM and Enkompass Control Panel last version.
- d. Red Hat Enterprise Linux for VMware VI 4 guests , Up to 2 sockets
- e. VMware vSphere 4 Enterprise for 6 processor + 1 year gold support

### 10-Training

Course Name	Participants
<b>Group 1 (Billing Clustering System Training)</b>	3
<b>Course1:</b> 1-Installing, Configuring, and Administering Microsoft Clustering Services by Using Microsoft Windows Server 2008 2-Implementing and Managing Windows Server 2008 Clustering <b>Course2:</b> 1-Installing, Configuring, and Administering Microsoft Clustering Services by Using Microsoft SQL Server 2008 2-Course : Designing High-Availability Database Solutions Using Microsoft® SQL Server™ 2008 3-Course : Designing a Clustering Solution Using Microsoft® SQL Server™ 2008 4-Course : Designing a Database Mirroring Solution Using Microsoft® SQL Server™ 2008 5-Course : Designing Replication Solutions for High Availability Using Microsoft® SQL Server™ 2008	
<b>Group 2 &amp; 3</b>	4 Group 2 (2 Persons) Group 3 (2 Persons)
VMware vSphere: Manage for Performance	
VMware vSphere: Manage and Design for Security	
RH253 Red Hat Linux Networking Services and Security	
<b>Training Conditions:</b>	

- The instructor should be certified.
- The training should be in certified training center.
- All expense shall be included.
- At least 15 working days

### 11-Cables and Accessories:

Item	Qty	Description
<b>Power cables</b>	Shall be specified by the bidder	All power cables shall be provided within the racks (PDU) and from the rack to PTC power cabinet , according to power capacity/needs and slot of the proposed equipment
<b>PDU</b>	Shall be specified by the bidder	Shall be specified according to power capacity and slot of the proposed equipment
<b>RACKs</b>	3	42U Server Guaranteed Compatibility w/Dell, HP, SUN & IBM Heavy duty framework holds 1300lbs Unit Markings at front & Rear Includes Caster base and Leveling feet
<b>Cables Manager</b>	At least 6	
<b>Patch panel</b>	3	24 Port Cat 6
<b>Patch cables ( Copper or fiber)</b>	Shall be specified by the bidder	CAT 6 for the copper

### 12.General requirement Description

ITEMS	Description /Conditions
<b>Equipment:</b>	<ul style="list-style-type: none"> <li>• The proposed must be original and new and they are not in the out-of-sale or out-of-life phase and they must be in the market for at least the coming five years before they become out-of-sale and seven years before they become out of life. The bidder has to provide a proof from the manufacturer.</li> <li>• All firmware have to be the latest version.</li> </ul>
<b>Delivery</b>	<ul style="list-style-type: none"> <li>• The bidder has to provide the necessary time required</li> </ul>



	<p>for delivering the proposed equipment.</p> <ul style="list-style-type: none"> <li>The bidder should be responsible for all installation and setup of the above Servers and Storage (Hardware and software)</li> </ul>
<b>License</b>	<ul style="list-style-type: none"> <li>The bidder has to provide a fully licensed system that ensures all services and functions to operated.</li> </ul>
<b>Installation and commissioning</b>	<p>The bidder has to provide the following:</p> <ul style="list-style-type: none"> <li>The installation, and commissioning of these equipment</li> <li>Technical support for one year as optional Item, and warranty of the above mentioned elements</li> </ul>
<b>Support</b>	<p>The bidder has to propose a support to all of the proposed equipment as optional features</p>
<b>Warrantee</b>	<ul style="list-style-type: none"> <li>At least one year for any items which is warrantee not mentioned above .</li> <li>warrantee details (type) shall be mentioned.</li> </ul>

#### General Technical Conditions:

- Once the tender is awarded , the winner shall prepare a site survey , present a installation plan with any requirement that should be provided by PTC.and power calculation.
- Any cables , accessories , additional cards or modules are bidder responsibility at provided equipment, that grantee the operation of the provided equipment .
- Any additional equipment or software that are required and not mentioned in the tender specs , shall be provided as optional items , describing the importance/effect of provide the items
- The bidder should provide SoC that describe the compliance for each technical item in the above tables .
- The bidder shall provide searchable softcopy of the offer.

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