

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 + اجهزة تخزين بيانات مع التدريب والخاصة بالادارة العامة للانترنت وتراسل المعطيات

High Level Requirements:

	ITEMS	Quantity	Comments
1.	Architecture for Billing Servers		
	1.1 Database Servers	2	Rack Mount
	1.2 Application Servers	2	Rack Mount
	1.3 SAN Switch	2	
2.	Architecture for VMware vSphere with Blade Servers and San Storage		
	2.1 VMware vSphere	1	
	2.2 Blade Chassis	1	
	2.3 Blade Servers	3	
	2.4 10Gb Ethernet Switch for the Blade Servers	2	
	2.5 SAN Switch for the Blade Servers	2	
	2.6 SAN Storage	1	
3.	Network Management		
	3.1 Network Management Servers	3	Rack Mount
	3.2 Laptops	5	
	3.3 Desktop computers	10	
4.	Others		
	Additional Software	lot	
	Training	7	
	Cables and Accessories	lot	
	Installation and commissioning	For all Hardware and software	
	Warranty	At least one year	

Technical Specifications:

1. Architecture for Billing Servers

1.1 Database Servers :

Specifications	Qty
4 x Intel Xeon Multi Core (minimum 6 core, 2.00GHz, 18M cache), 6.40 GT/s QPI, x64 servers or equivalent 64 GB Memory installed , 1066MHz, RDIMMs for 2 Processors 4 x 300 GB 15K RPM Hotplug Hard Drive Internal raid controller 512 MB support all raid technology or equivalent 2 x 4/8 FC Gbps HBA 2 x Dual -Port Embedded Gigabit Ethernet Controllers AC Redundant power supply DVD-RW Drive Internal At least 2 Years warrantee (details (type) shall be mentioned) Embedded Management Systems Management Consoles Sliding Ready Rails All Servers accessories, kit, Electronic System Documentation, Management DVD Kit License Windows Server®2008 R2, Enterprise Edition Microsoft® SQL Server™ 2008 Enterprise Edition License per CPU	2

1.2 Application Servers :

Specifications	Qty
2x Intel Xeon Multi Core (minimum 6 core, 2.00GHz, 18M cache), 6.40 GT/s QPI, x64 servers or equivalent 32 GB Memory installed , 1066MHz, RDIMMs for 2 Processors 4 x 300 GB 15K RPM Hotplug Hard Drive Internal raid controller 512 MB support all raid technology or equivalent 2 x 4/8 FC Gbps HBA 2 xDual -Port Embedded Gigabit Ethernet Controllers AC Redundant power supply DVD-RW Drive Internal At least 2 Years warrantee (details (type) shall be mentioned) Embedded Management Systems Management Consoles Sliding Ready Rails All Servers accessories, kit, Electronic System Documentation, Management DVD Kit License Windows Server®2008 R2, Enterprise Edition	2

1.3 4/8Gb Full Fabric Fiber Channel SAN Switch

Specifications	Qty
4/8 Gb Fiber Channel Switching Module Minimum 16 ports Minimum 8 active ports with SFPs AC Redundant Power RoHS-compliant	2

Notes:

- The billing system is working under Windows Server, MS 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.) (Mandatory)

2. Architecture for VMware vSphere with Blade Servers and San Storage

2.1 VMware vSphere

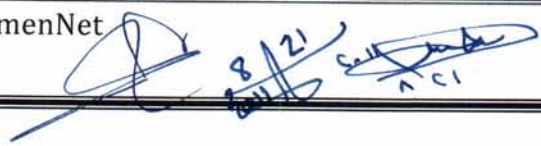
Specifications	Qty
VMware vSphere 4 Enterprise for 6 processor + 1 year gold support	1

2.2 Blade Servers

Specifications	Qty
2 x Intel® Xeon, 18M cache, 5.86 GT/s QPI, Turbo, HT, 8C or equivalent 32GB Memory (1333MHz) for 2 CPU for Blade x64 Servers 2 x 146GB 15K RPM Hotplug Hard Drive Internal raid controller with 256 MB Cache 1 x Dual Port 10GbE I/O Card 1 x Dual Port FC 4/8 Fiber Channel Host Bus Adapter 3 Year warrantee All Servers accessories, kit, Electronic System Documentation, Management DVD Kit License Windows Server 2008 R2, Datacenter Edition licensed to above servers CPUs .	3

2.3 Blade Servers Chassis

Specifications	Qty
8 to 10 U modular enclosure holds up at least 10 blade servers Minimum 2 redundant AC power supplies, hot plug power supplies (N+1) Minimum 4 redundant cooling fan, hot pluggable Redundant Chassis Management Controller (CMC) Front Control Panel, Supports initial configuration wizard, Local server blade, enclosure, and module information and troubleshooting USB Keyboard/Mouse and Video connections. 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	1

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 NCI

2.4 10Gb Ethernet Switch for the Blade Servers

Specifications	Qty
10Gb Ethernet layer 3 switch Up to 16 internal fabric ports 10Gb uplink support Management console port	2

2.5 4/8Gb Full Fabric Fiber Channel SAN Switch for the Blade Servers

Specifications	Qty
4/8 Gb Fiber Channel Switching Module Up to 16 internal fabric ports Minimum 8 active ports with SFPs	2

2.6 SAN Storage

Specifications	Qty
2 x Redundant storage processors Storage array with at least 8GB cache and 8 host ports Rack-Ready Controller Tray 15 x 600 4Gb 15Krpm FC-AL Drives 2 x redundant AC power supplies and cooling fans 2 x FC ports for expansion trays Management software 4 Domain licenses Rack Rail Kit 1 year on-site warranty Include Fiber optic cables 5M	1

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3. Network Management

3.1 Network Management Servers

Specifications	Qty
2x Intel Xeon Multi Core (minimum 4 core, 2.00GHz, 18M cache), 6.40 GT/s QPI, x64 servers or equivalent 16 GB Memory installed , 1066MHz, 2 Processors 4 x 146GB 15K RPM Hotplug Hard Drive Internal raid controller 512 MB support all raid technology 2 x Dual -Port Embedded ,Gigabit Ethernet Controllers AC Redundant power supply DVD-RW Drive Internal At least two Year warrantee details (type) shall be mentioned. Embedded Management Systems Management Consoles Sliding Ready Rails With Cable Management Arm All Servers accessories, kit, Electronic System Documentation, Management DVD Kit Windows Server®2008S R2, Enterprise Edition	3

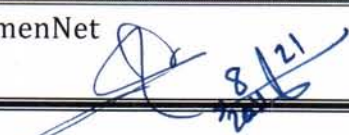

3.2 Laptops

Specifications	Qty
Genuine Windows® 7 Professional Intel® Core™ i7-720M processor NVIDIA® NVS™ 3100M or equivalent 4 GB DDR3 1333MHz memory installed 500GB HDD (7200rpm) DVD-SuperMulti drive 14.0" to 15.0" widescreen TFT LED Backlit display Standard stereo speakers, Headphone jack (stereo), Built-in microphone 802.11 a/g/n (Optional) Bluetooth® V2.1 + EDR Modem Gigabit Network Connection 75W (15V 5.0A) Auto-sensing, 100-240V / 50-60Hz input Li-Ion (55Wh, 6-Cell) minimum 4 hrs. 1-SmartCard Reader slot Memory Card Reader 1-eSATA/USB (2.0) combo port with Sleep and Charge, 2-USB (2.0) ports , and one serial port, or equivalent Multiple-Level Password Utilities, Password Security, Reinforced Security Cable Lock Slot, HDD Recovery Include All Drivers and Management Software 3-Yr Standard Limited Warranty, touch pad pointing device, (optional) touch pad on/off, Volume Control	5

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3.3 Desktop computers (brand Name)

Specifications	Qty
Intel i5 , 4MB Cache,3.0 GHz + ATI Radeon HD 4270 or equivalent Configures with 4 GB Dual Channel DDR3 SDRAM at 1333MHz - 2 DIMMs 500G/ 1TB - 7200RPM, SATA 3.0Gb/s Arabic Desktop Keyboard & Mouse Chassis with AV-input CD/DVD burner (DVD+/-RW), write to CD/DVD (802.11n) WLAN PCI Integrated 10/1000 Ethernet 110-230 v External speakers 1 Year Limited Warranty	10

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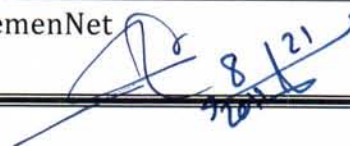

4. Others

- 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

- Training

Course Name	Participants
Group 1 (Billing Clustering System Training)	3
Course1: 1-Installing, Configuring, and Administering Microsoft Clustering Services by Using Microsoft Windows Server 2008 2-Implementing and Managing Windows Server 2008 Clustering Course2: 1-Installing, Configuring, and Administering Microsoft Clustering Services by Using Microsoft SQL Server 2008 2- Designing High-Availability Database Solutions Using Microsoft® SQL Server™ 2008 3- Designing a Clustering Solution Using Microsoft® SQL Server™ 2008 4- Designing a Database Mirroring Solution Using Microsoft® SQL Server™ 2008 5- Designing Replication Solutions for High Availability Using Microsoft® SQL Server™ 2008	
Group 2 & 3	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	
Training Conditions:	
<ul style="list-style-type: none"> • The instructor should be certified. • The training should be in certified training center. • All expense shall be included. • At least 15 working days 	

- Cables and Accessories:

Item	Qty	Description
Power cables	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
PDU	Shall be specified by the bidder	Single-Phase Basic PDU Maximum Input Amps : 16A PDU Input Voltage :100-240V 1U Horizontal Rackmount Outlet quantity / type: 8 to 12 IEC-C13 & 1 to 2 IEC-C19
RACKs	3	46U Size Guaranteed Compatibility w/Dell, HP, SUN & IBM Heavy duty framework holds 1300lbs Unit Markings at front & Rear Includes Caster base and Leveling feet
Cables Manager	At least 6	
Patch panel	3	24 Port Cat 6
Patch cables (Copper or fiber)	Shall be specified by the bidder	CAT 6 for the copper

- General requirement Description

ITEMS	Description /Conditions
Equipment:	<ul style="list-style-type: none"> 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. All firmware have to be the latest version.
Delivery	<ul style="list-style-type: none"> The bidder has to provide the necessary time required for delivering the proposed equipment. The bidder should be responsible for all installation and setup of the above Servers and Storage (Hardware and software)
License	<ul style="list-style-type: none"> The bidder has to provide a fully licensed system that ensures all services and functions to operate.
Installation and commissioning	<p>The bidder has to provide the following:</p> <ul style="list-style-type: none"> The installation, and commissioning of these equipments Technical support for one year as optional Item, and warranty of the above mentioned elements
Support	<p>The bidder has to propose a support to all of the proposed equipment as optional features</p>
Warranty	<ul style="list-style-type: none"> At least one year for any items which is warrantee not mentioned above . warranty details (type) shall be mentioned.

General Technical Conditions:

- In the offer ,The bidder shall include SOW for the proposed equipment and the software, describing but not limited to the (clustering for billing servers , connectivity between devices ,cards with ports , cables ...etc ,illustrate the model no , how It will be connect and how it will work (Mandatory)
- 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 to be provided that guarantee 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 tables above(Mandatory)
- The bidder shall provide searchable softcopy of the offer.