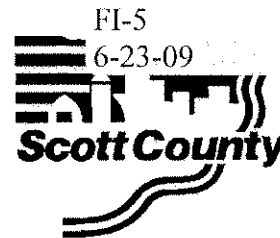


INFORMATION TECHNOLOGY

416 West Fourth Street
Davenport, Iowa 52801-1187

Ph: (563) 328-4100 Fax: (563) 326-8669
www.scottcountyiowa.com



June 17, 2009

To: Dee F. Bruemmer, County Administrator
Mary Thee, Assistant County Administrator

From: Matt Hirst, Information Technology Director

Subject: Approval of Citrix Upgrade – Hardware Phase

Scott County Information Technology has received a bid for blade server and Storage Area Network (SAN) hardware as the initial phase of a two phase, Citrix upgrade project. The cost for this hardware from HP and professional setup services from Vital Support Systems is \$277,582.29 in total.

Information Technology currently supports fifty-two (52) physical servers and fifteen (15) virtual servers. This project will provide the hardware and operating system foundation upon which application virtualization software such as Citrix will run. This project will also upgrade Information Technology's ability to support virtual servers and allow IT to begin to reduce the number of actual physical servers. A reduction in physical servers through the use of virtualization has many advantages including reduced hardware cost, reduced support requirements, improved business continuity capabilities, and improved hardware and software upgrade capabilities.

Vital Support Systems is a Hewlett-Packard Platinum partner and is a Elite certified HP partner in blades, storage and virtualization among others. Additionally, Vital is State of Iowa ITQ qualified and has an office as well as a Master SAN Architect in the Quad Cities.

Note: The pricing for this hardware was obtained directly through Hewlett-Packard. As part of I.T.'s due diligence in investigating this purchase, it was determined this direct from HP pricing provides over five percent savings over pricing available through State of Iowa WSCA (Western States Contracting Alliance) contract. (The State of Iowa WSCA contract is competitively sourced and is available for use by all State of Iowa Agencies and Political Sub-Divisions within the State of Iowa including Scott County.)

It is recommended that the Board approve the bid from Hewlett-Packard.

Budget dollars are available in the Capital Improvement Program budget to fund the cost of this project.

Encl(s): 2

Hewlett Packard/WSCA
10810 Farnam Drive
Omaha, NE 68154
515-334-5757

Named Reseller:
Vital Support Systems
Dealer ID# D38459
5696080001

Quote #	VSSQ24109-05
Date	06/16/09

Bill To: Scott County
 Matt Hirst
 416 West Fourth Street
 Davenport, IA 52801

Ship To: Scott County
 Matt Hirst
 416 West Fourth Street
 Davenport, IA 52801

Phone: 563-328-3261

Phone: 563-328-3261
E-Mail: MHirst@SCOTTCOUNTYIOWA.com

Rep	Phone	Personal Fax	E-Mail Address
Kendall Schuett	563-650-4913	319-294-8304	kendall.schuett@vitalsite.com

Ln #	Qty	Description	Unit Price	Ext. Price
1		HP EVA4400 VIRTUAL ARRAY ~20TB USABLE		
2	1	HP EVA4400 DUAL CONTROLLER ARRAY	\$4,413.00	\$4,413.00
3	6	HP M6412 FIBRE CHANNEL DRIVE ENCLOSURE ENCLOSURE	\$2,595.00	\$15,570.00
4	64	HP 450GB 15K FC EVA HDD	\$1,464.00	\$93,696.00
5	4	STORAGE WORKS LC/LC 2M CABLE	\$60.00	\$240.00
6	1	HP UNIVERSAL RACK 10642 G2 SHOCK RACK	\$1,414.55	\$1,414.55
7	1	FACTORY EXPRESS BASE RACKING	\$285.00	\$285.00
8	2	HP 24A HIGH VOLTAGE US/JP MODULAR PDU	\$284.05	\$568.10
9	1	HP 10K G2 600W STABILIZER KIT	\$217.55	\$217.55
10	1	HP 10642 G2 SIDEPANEL KIT	\$341.05	\$341.05
11	1	HP BUSINESS COPY EVA4400 UNLIM LTU	\$8,757.00	\$8,757.00
12	1	HP COMMANDVIEW EVA 4400 UNLIMITED LTU	\$6,150.00	\$6,150.00
13	1	HP SMARTSTART FOR EVA V3.0. E-MEDIA KIT	\$75.00	\$75.00
14	1	DL320 G5P E3110 1G SVR	\$869.97	\$869.97
15	1	1GB KIT 1X1GB PC2-6400 UNBUFF	\$13.00	\$13.00
16	2	72GB SAS 3G 15K LFF 3.5IN HOT	\$221.00	\$442.00
17	1	SLIM 12.7MM DVD KIT	\$82.00	\$82.00
18	1	HBA SAS/SATA 4X1LN CABLE KIT	\$35.00	\$35.00
19	1	SMART ARRAY E200 RAID 8CH	\$242.00	\$242.00
20	1	HP FC2242SR PCIE DC HBA	\$1,296.00	\$1,296.00
21		SubTotal		\$134,707.22
22		HP 3YR SUPPORT PLUS 24 SERVICES		
23	1	EVA4400 DUALCTRL ENCLOSURE SUPPORT	\$1,113.60	\$1,113.60
24	6	EVA4400 FC DRIVE ENCLOSURE SUPPORT	\$512.40	\$3,074.40
25	64	EVA4400 450GB/1TB HDD SUPPORT	\$200.40	\$12,825.60

Ln #	Qty	Description	Unit Price	Ext. Price
26	1	COMMANDVIEW EVA4400 UNLIM LTU SUPPORT	\$2,408.40	\$2,408.40
27	1	BUSINESS COPY EVA4400,CA UPG4400 SUPPORT	\$3,429.00	\$3,429.00
28	1	PROLIANT SERVER DL320 HW SUPPORT	\$381.57	\$381.57
29		SubTotal		\$23,232.57
30		HP BL7000C BL460C SERVERS QTY4		
31	1	HP BLC7000 CTO 3 IN LCD ENCLOSURE	\$3,491.98	\$3,491.98
32	6	HP BLC7000 ENCLOSURE POWER SUPPLY IEC320 OPTION	\$190.01	\$1,140.06
33	6	HP BLC ENCL SINGLE FAN OPTION	\$114.00	\$684.00
34	1	HP BLC7000 1 PH FIO POWER MODULE OPT	\$128.99	\$128.99
35	1	HP C-CLASS ALL FIO 16 ICM 1YR 24X7 LICENSE	\$3,172.82	\$3,172.82
36	6	HP BL460C G1 DVLSS CTO BLADE	\$1,031.03	\$6,186.18
37	6	HP E5450 BL460C G1 FIO KIT	\$955.02	\$5,730.12
38	6	HP E5450 BL460C G1 KIT	\$926.06	\$5,556.36
39	12	16GB KIT 2X8GB PC2-5300 FBD	\$1,276.93	\$15,323.16
40	6	HP HDD BKPLN BL460C FIO KIT	\$1.00	\$6.00
41	6	HP BLC QLOGIC QMH2462 FC HBA OPT KIT	\$569.99	\$3,419.94
42	6	HP BLC NC325M NIC ADAPTER OPTION KIT	\$437.03	\$2,622.18
43	12	72GB SAS 15000 RPM SFF 2.5IN	\$256.00	\$3,072.00
44	12	FACTORY INTEGRATED	\$0.00	\$0.00
45	6	HP SA E200 64MB FIO CACHE	\$69.00	\$414.00
46	2	BROCADE BLADE SYSTEM 4/24 SAN SWITCH	\$7,600.00	\$15,200.00
47	8	HP 4GB SW SINGLE PACK SFP TRANSCEIVER	\$159.20	\$1,273.60
48	6	HP BLC CISCO 1GBE 3120G SWITCH	\$4,575.75	\$27,454.50
49		SubTotal		\$94,875.89
50		HP 3YR SUPPORT PLUS 24 SERVICES		
51	1	C7000 ENCLOSURE HW SUPPORT	\$732.33	\$732.33
52	6	BL4XXC SERVER BLADE HW SUPPORT	\$347.60	\$2,085.60
53	2	BROCADE 4/12 AND 4/24 SAN SWITCH SUPPORT	\$967.20	\$1,934.40
54	1	HP ICE BL 16 SERVER SW SUPPORT	\$1,289.28	\$1,289.28
55		SubTotal		\$6,041.61
56		Running SubTotal		\$258,857.29
57		Vital Implementation Services		
58		Vital Installation and Configuration (See Scope of Work for Labor Details)		\$18,725.00
QUOTE VALID FOR 30 DAYS.			Total	\$277,582.29

Product will be invoiced and shipped by HP, per WSCA contract terms.

VITAL RESERVES THE RIGHT TO AUTHORIZE PARTIAL SHIPMENT AND BILLING, UNLESS OTHERWISE NOTED.

Closing Notes:

Please Reference Quote# on Purchase Order.

Fax acceptance to 515-334-5757

Customer Signature: _____

Print: _____

Date: _____

Thank you for your business!



Scott County Storage, Blades and Virtualization Project

Customer:	Scott County	Contact Name:	Matt Hirst
Customer Address:	416 West 4Th Street	Contact Phone:	563-328-3261
Customer City, St, Zip:	Davenport, IA 52801	Contact Email:	mhirst@scottcountyiowa.com
Date:	6/1/2009	Quote #:	VSSQ24109-03

OVERVIEW

This work is to be performed for Customer by Vital (Company) for the installation of the Enterprise Solution. This service will be delivered on-site.

All service is to be provided to the same Customer site during normal business hours (8-5 Mon-Fri), unless otherwise specified. This installation will take place at a designated date and time.

NOTE: Actual phase implementation tasks will vary dependent upon Customer Quote and Authorized Purchase Order with selected options.

EXECUTIVE SUMMARY

Customer project to consist of C7000 with 6 BL460s attached to EVA4400 FC solution. Company will install 2 nodes of both vSphere and XenServer for customer to evaluate differences. After customer evaluation period, customer will choose virtualization platform and install remaining nodes.

TECHNICAL SPECIFICS

Evaluation licenses will be used during evaluation period. vCenter to be installed in VM

PURCHASE ORDER VALIDATION

Phase (All)

- Inventory Purchase Order against the Equipment Packing Slip.

SYSTEMS BUILD

Phase (EVA)

Connections to the HP SAN:

- [1] EVA's
- [4] Servers with Fibre Channel Connectivity (with MPIO connections)
- [2] Fibre Switches
 - [24] Ports per Switch
 - [12] Ports Populated
- [0] iSCSI Connectivity Kits
- [0] Continuous Access Arrays
- Company to connect [4] hosts to SAN Fibre Channel
- Company to connect [0] hosts to SAN iSCSI
- Company to migrate [1] hosts' data to SAN during normal business hours
- Company to migrate [0] hosts' data to SAN after normal business hours

Pre-Installation Consulting and Planning:

- Prior to commencing work a Vital Engineer and/or a Project Manager will contact the Customer.
- Review the implementation activities to be performed, ensure that the prerequisites are met, explain the extent of Customer-specific tailoring available, explain the roles and responsibilities of the Customer's personnel, and agree on the corresponding project schedule.
- Customer will provide the hardware to be configured according to the HP SAN specifications.

Phase (BLc)

- Customer will provide the hardware to be configured according to the blade server specifications.
- Company to manually install OS on [0] blade(s).

CONFIGURATION & SETUP

Phase (EVA)

- Install Fibre Channel switches.
- Install HBA in Customer-provided servers.
- Install Command View on Customer-provided hardware.
- Initialize controllers.
- Update firmware as needed.
- Configure Zoning on Fibre Channel switches.
- Initialize San Management Subsystem.
- Configure Disk Groups.
- Setup Notification and SNMP strings.
- Update all passwords on SAN devices.
- Installation of Customer-optional SAN management software.

Phase (BLc)

- Install the blade chassis in the rack.
- Configure each blade for unique components.
- Setup iLo for all blade servers.
- Update firmware on chassis and enclosures.
- Install interconnects into enclosure and uplink to existing infrastructure.

Phase (VI3)

- Install ESX hardware platform.
- Install and configure ESX software.
- Configure the virtual networks.
- Configure storage and presentation to the ESX server.
- Install and configure the Virtual Center (VC) software.
- Install licensing server.
- Import ESX servers into VC.
- Configure Hardware Availability (HA).
- Configure VMotion.
- Configure Distributed Resource Scheduling (DRS).

XenServer

- Install latest XenServer on 2 blade servers.
- Configure virtual networking and connect to EVA Storage.
- Configure HA features and XenMotion.

TESTING

Phase (EVA)

- Install a HBA in a Customer-provided test server (host).
- Install and Configure Multipathing Software.
- Configure zoning of the Fibre Channel switches for the host to see the SAN.
- Add the test server as a Host within Command View.
- Create a virtual disk in Command View and present it to the host server.
- Validate from the host server that it can view all the disks and paths.
- Format and assign a drive to the new virtual disk.
- Perform Snap/Clone functionality if the Customer purchased this option.

Phase (VI3)

- Test and verify VM functionality.
- Test and verify snapshots.
- Create and validate VM templates.

- Test and verify HA.
- Test and verify VMotion.
- Test and verify DRS.
- Test and verify Storage VMotion (if applicable).

Phase (XenServer)

- Test and verify HA and other configured features.

KNOWLEDGE TRANSFER

Phase (EVA)

- Provide overview of the Command View management home page.
- Install and configure an HBA in the Customer-provided server.
- Install and configure Multipathing software on the server.
- Provide overview of the Fibre Channel switch management page.
- Create Zone for the Fibre Channel Switch.
- Add a host to the Command View.
- Create a virtual disk for the host and present it to the host.
- Validate disk and paths for the host using Multipathing software.
- Format and assign a drive to the virtual disk.
- Demonstrate the Snap/Clone functionality if option was purchased by the Customer.
- Demonstrate the Snap/Clone scripting functionality if purchased by the Customer.
- Walk through changing all passwords on SAN devices to customer specified passwords.

Phase (BLc)

- Review hardware components and their functions.
- Building a blade:
 - Configure HBA settings (if SAN applies).
 - Create host and disk (if SAN applies).
 - Complete finishing tasks.

Phase (VI3)

- Best Practices configuration.
- Overview of the ESX administration home page and Virtual Infrastructure (VI) client.
- Deployment of a VM.
- Demonstrate the management of a VM.
- Overview of VM resource components.
- VirtualCenter (VC) configuration and object definitions.
- Overview of VC web client and VI client.
- Overview of VC security/permissions.
- Overview of HA setup and configuration.
- Demonstrate VMotion.
- Demonstrate Storage VMotion (if applicable).
- Overview of DRS setup and configuration.

Phase (XenServer)

- Administration overview of XenCenter and installed features

DEPLOYMENT

Phase (EVA)

- Customer will install and configure the remaining servers for presentation to the SAN.

Phase (BLc)

- Customer will deploy remaining blade servers according to the Customer's schedule.
- Vital recommends the Customer reviews a blade installation on a non-SOW server while the Vital Engineer is on-site.
- Additional Labor will be required if the Customer requires assistance with non-SOW servers after the Vital Engineer has left the job site.

Phase (VI3)

- Customer will deploy VMs.

Phase (XenServer)

- Customer will deploy VM's)

DOCUMENTATION

Phase (EVA)

- SAN scan.
- IP and account information.
- Visio diagram (physical and topological).
- Brocade SAN health report or SAN visibility report (if not Brocade).
- License files.
- Baseline EVA, switch configs, "Support Show".
- EVA support document.

Phase (BLc)

- Vital Helpful Hints document.

Phase (VI3)

- IP schema, naming, SNMP, account information, and VM support contact information.

Phase (XenServer)

- Configuration information including Visio

CUSTOMER RESPONSIBILITIES

- Customer is responsible for providing a single point-of-contact for Company personnel throughout the project.
- Customer is responsible for notifying their managers and users of the installation date and potential down times associated with this project. This includes notifying managers and users of any risks associated with this project.
- Customer is responsible for providing dedicated power circuits, suitable space for placement of the equipment in a secure location and providing Company with floor plans and/or electrical drawings, as needed.
- If Customer requests additional equipment or services outside of the original order, Customer will be required to follow Company's change order control process.
- Customer is responsible for all costs associated with third-party issue resolutions and delays not contracted by Company.
- Customer is responsible to ensure all of its electronic files and other data are adequately duplicated, documented and protected.
- Company recommends that Customer changes any user ID's or passwords that were implemented or disclosed during project implementation.
- Customer is responsible for verifying that application vendors will support their product(s) when installed on a virtual server.
- Customer responsible for all migrations and installation of OS on 2 servers and reinstall of Hypervisor once platform decision is made.

PROJECT COORDINATION

- Company will provide a kick off meeting at the start of the project.
- Company will track equipment.
- Company will schedule the required resources for project completion.
- Upon completion of the project, a notice of project completion will be delivered.

EQUIPMENT ACQUISITION & DELIVERY

- Company will procure, inventory and deliver the equipment ordered for Customer. If Customer requests additional equipment or services, a change order will be required.
- Equipment delivered to Customer will require Customer signature and becomes the sole responsibility of the

Customer. Any equipment shipped to customer and then is missing at time of installation will need to be replaced by Customer at an additional cost. Customer will provide Company with access to a secured location at the Customer's facilities for delivery of the equipment.

CHANGE ORDER

- If Customer requests additional equipment or services outside of this Agreement, a Change Order will be required which may result in additional charges.

BUILDING FACILITIES

- Customer will provide building access for equipment delivery and installation. Company will make every attempt to work with Customer's schedule for new building construction or remodeling. Customer will be responsible for Time & Material charges incurred for extra trips required by third-party vendor delays.

PROPRIETARY & THIRD PARTY APPLICATIONS

- It is the Customer's responsibility to notify Company prior to the ordering of equipment or any applications, databases, or other software/hardware that is required to interoperate with the proposed equipment. Company is not liable for the functionality of any components not specifically addressed in this scope of work.

INVOICING

- The Customer will be invoiced for the equipment upon delivery per contract terms. Payment terms for any non-HP items are referenced on the associated quote.

SUPPORT & WARRANTY

- The Customer will be able to contact Vital Support Systems Customer Care Center by calling 515-334-5755, 7 days a week, 24 hours a day. A service ticket will be opened and resources will be scheduled. Support will be charged at the standard applicable rate, unless emergency services are requested, in which case emergency rates will be charged. Standard manufacturer's warranties are provided on all equipment.

LICENSING

- Customer is responsible for ensuring that all licensing is up-to-date for any software being supplied by Customer. Company reserves the right to verify licensing on any software provided by Customer prior to installation.
- Customer is responsible for Operating System licenses.

EXCLUSIONS

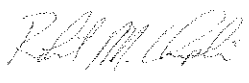
- Company is not responsible for software and hardware connections not identified as part of this scope.
- Company will not be held accountable for modifications, new development, or new vendors not identified by Customer before the signing of the contract.
- Company will not be responsible for missed plan milestones due to Customer's failure to provide timely and/or accurate information.
- Company will not be responsible for third-party vendors (not contracted by Company) regarding issue resolution, delays and costs impacting the completion of the plan.
- Company will not be responsible for disconnecting Customer's circuits, unless otherwise specified in the Agreement.
- Company will not be responsible for reconstructing data stored on disk files, tapes, memories, scheduling, etc.

ASSUMPTIONS

- Company will be allowed to test during normal business hours. Customer will need to notify Company if this is not acceptable. A Change Order will need to be completed and approved to arrange additional resource scheduling for after-hours labor that is not considered to be part of this scope of work.
- Customer will have a management structure in place and available to resolve any project related issues.
- Information provided by Customer is accurate and complete.
- Plan Milestones are dependent upon availability of equipment provided by all third-party vendors.

Vital Support Systems (Company)

Scott County (Customer)

Signature: 

Signature: _____

Title: _____

Title: _____

Date: _____

Date: _____

