

**CITY OF SAN ANTONIO
INTERDEPARTMENTAL MEMORANDUM
ERM PROJECT**

TO: Mayor and City Council

FROM: Troy Elliott, Director, Enterprise Resource Management Project

THROUGH: Terry M. Brechtel, City Manager

COPIES: J. Rolando Bono, Deputy City Manager; Travis M. Bishop, Assistant City Manager; Andrew Martin, City Attorney; Gary Moeller, Director, Information Technology Services Department; Milo Nitschke, Director, Finance Department; Bill Wood, Assistant City Attorney; ERM Steering Committee; File

SUBJECT: Appropriating Funds and authorizing annual contracts for the Procurement of ERM Hardware and Technology Infrastructure Improvements

DATE: August 28, 2003

SUMMARY AND RECOMMENDATIONS

This ordinance authorizes the appropriation of funds, amendment of the Information Technology Services budget and authorizes various annual contracts for the purchase of additional hardware, software, and networking components in support of the Enterprise Resource Management (ERM) Project.

An ordinance authorizing the appropriation of funds in the amounts of \$1,210,000 for unix servers; \$713,000 for NT Servers; \$604,000 for Citrix (Terminal Emulation) and backup software; \$166,000 for network improvements; \$153,000 for associated items; amending the Information Technology Services Fund Budget in the amount of \$451,000 for additional network improvements; for a total amount of \$3,297,000 and accepting the bids of various companies to provide the City of San Antonio with hardware and software on an annual contract basis for Fiscal Year 2003-2004 required for the ERM Project implementation.

Staff recommends approval of this Ordinance.

BACKGROUND INFORMATION

The initial procurement of Hardware for the ERM Project was authorized via Ordinance number 96054 on June 27, 2002 in the amount of \$5,061,836, creating the foundation for the ERM Project to build upon as the design for each Wave of the Project is completed. This hardware purchase only included the minimum configuration in order to minimize project costs until a more detailed sizing could be performed. This minimum configuration included the development, testing/training (sandbox) and initial go-live hardware. The hardware purchase included items such as Unix servers, NT servers and disaster recovery software moving the City in the direction of a Client Server environment and away from a mainframe based system.

The combination of the evolving design requirements and additional testing have revealed the need for additional infrastructure requirements in the area of servers, network improvements,

Citrix (Terminal Emulation software), additional disaster recovery software licenses and miscellaneous items such as backup tapes, power distribution units and cabling services. The need for the additional equipment is a contributing factor to the need to revise the timelines for the ERM Project Go-live dates. The Customer Relationship Management, and Land Management Go-live date currently scheduled for January 2004 is dependant upon the approval of these procurement items by August 31, 2003 and receipt, installation and testing of the equipment items by October 2004. Postponing the purchase of the necessary equipment items will result in renegotiating trade in values, allowances and discounts with a value of \$808,196 for the unix servers, which is potentially an additional cost to the Project.

As the designs for the City's configuration of the initial SAP Waves were finalized, the need for additional hardware to support those designs was identified. This is determined utilizing the ASAP Methodology (Accelerated SAP) designed and required specifically for SAP implementation projects. The methodology uses an independent hardware configuration process in order to determine the hardware sizing and configuration as follows:

1. The ERM Project team determines user and transaction counts during the blueprint phase of each Wave. This procurement utilizes actual data for Wave A, B and C and estimates the number of users and transaction counts for all Waves D, E, F, G and H.
2. The counts are provided to the hardware vendor's SAP competency center to determine the required processing capacity (system size) utilizing the SAP QuickSizer tool developed by SAP, IBM, Hewlett Packard, Sun and others. The SAP QuickSizer tool measures the required processing capacity in a unit of measure known as "SAPs."
3. The number of "SAPs" required is then used to determine the processor and memory requirements.
4. The Project Team and Sun select hardware based on capacity and the ability to accommodate future growth.
5. This process is repeated as the design for each phase is completed in order to refine the sizing and configuration of the hardware.

The Unix Servers will not only address the Projects current requirements for user and transaction counts, but will simplify the design of the hardware component to include increased expansion capabilities and response times.

In addition to the process defined above, Deloitte Consulting retained consulting services from SAP's solution review service in March 2003 to provide the City with an independent and objective review of the Customer Relationship Management (CRM) business processes, application configuration, and a readiness assessment for production. A component of this review focused on the technical landscape.

SAP was engaged a second time in May 2003 to focus specifically on the hardware landscape and provide summary and details of findings, identify potential areas of risk and provide recommendations. SAPs findings have been incorporated into the proposed hardware purchase in order to resolve and minimize the risk to the Project. The combination of the ASAP methodology defined above and the review performed by SAP was utilized to validate the required hardware landscape and proposed hardware purchase.

The additional Dell servers will provide functionality that could not have been anticipated until project designs were finalized. This functionality includes Web functionality for Customer

Relationship Management, Collaboration folders for Capital Project, Fax Servers, Workflow and for hosting Citrix Software and users.

Additionally, the requirements of the project accelerated the need for upgrades to the City's technical infrastructure that was already planned for future purchases out of the Information Technology Services Fund. The purchase of additional network equipment and Citrix Server technology addresses those needs. The Citrix Server technology will allow the City to use less powerful PCs and reduced network bandwidth, resulting in an estimated net savings to the City in excess of ten million dollars over the course of the next three years.

The brocade switches being purchased are a direct result of the need for additional servers. These brocade switches connect the services, forming a "fabric network" which not only connects the new servers to each other, but integrates the new servers with those already in place. The amount of data that will be transmitted over the City's network due to the implementation of SAP and Hansen created a need for additional network bandwidth. Network bandwidth is essentially the pipe through which the data flows. The new ERM software, in effect would have been trying to send more information through the pipe than the pipe was capable of handling. Finally, the DMZ is a technical term derived from the "demilitarized zone" between two combative forces to describe a method of protecting vital computer hardware from intrusion and attacks. Essentially, the DMZ places a firewall of protection between the external users and the City's computer equipment and then also places another firewall between the City's internal users and the computers. This protects the City's computer hardware from attacks from both directions while allowing legitimate transactions to occur.

Additionally, for Council action is the approval and acceptance of bids from Vector ESP Inc., Commercial Data Systems, Vion Corporation, CDWG Government Inc., Dell Computer Corporation, SBC Data Communications (local), ESRI (local office) and Sigma Solutions Inc. (local office) to provide the City of San Antonio with unix servers, NT Servers, network improvements, GIS improvements, and miscellaneous items such as backup tapes, power distribution units and cabling services on an annual basis. Bids are attached for review.

POLICY ANALYSIS

Purchase of this equipment is consistent with previous City Council actions and the implementation of an Enterprise Resource Management System. This equipment will be purchased utilizing TXMAS Contracts and the State of Texas Department of Information Resources (DIR) "GoDirect" Program and is being made in accordance with the State of Texas Cooperative purchasing Agreement adopted by the City of San Antonio resolution No. 91-39-53.

FISCAL IMPACT

This ordinance authorizes the appropriation of funds from the ERM Project in the amount of \$2,846,000 and amends the Information Technology Services budget in the amount of \$451,000 for the purchase of additional hardware, software, and networking components in support of the Enterprise Resource Management (ERM) Project. Procurement of these items will be executed through the proposed annual contracts and state procurement mechanisms. Payment will be issued to an approved vendor upon successful issuance of a purchase order and receipt of items.

A summary of the appropriation and ITSD budget amendment by category is presented below:

Item	ERM Project Appropriation	ITSD Fund Budget Amendment	Total
Unix Servers	\$1,210,000		1,210,000
NT Servers	713,000		713,000
Citrix & Backup Software	604,000		604,000
Network Improvements	166,000	451,000	617,000
Associated/Misc. Items	153,000		153,000
Total	\$2,846,000	\$451,000	\$3,297,000

Annual maintenance and support will be funded from the fiscal year 2004 Information Technology Services Department operating budget.

COORDINATION


This item has been coordinated with the City Attorneys Office, Information Technology Services Department, Finance Department, Purchasing and General Services Department, and the Office of Management and Budget.


SUPPLEMENTARY INFORMATION

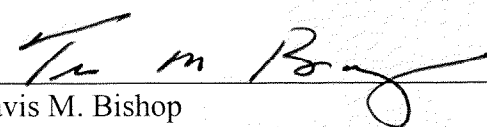
Discretionary contract disclosures are not applicable to DIR and TXMAS Procurements.

SIGNATURES



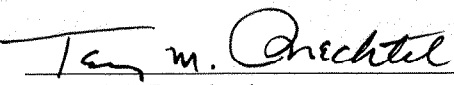
Troy Elliott
ERM Project Director

Milo Nitschke
Director, Finance Department

Gary Moeller
Director
Information Technology Services Department

Travis M. Bishop
Assistant City Manager

Approved:



Terry M. Brechtel
City Manager

CITY OF SAN ANTONIO
BID TABULATION

ANNUAL CONTRACT FOR: HARDWARE AND SOFTWARE FOR ERM PROJECT (A939-04)

State of Texas TXMAS Contract utilizing the following vendors:

Vector ESP, Inc. (TXMAS-3-70060)
13610 Barrett Office Drive, Ste. 109G
Ballwin, MO 63021

<u>Item</u>	<u>Product Numbers</u>	<u>Description</u>	<u>Unit Cost</u>	<u>Estimated Quantity</u>	<u>Extended Cost</u>
1	EVMALP-PS-N-10K	KVS Software 6,000seats of Mailbox Management, Includes all Archiving License, quota control, file compression, single instance store functions, 5.5 to 2000 Migration	\$109,675.00	1	\$109,675.00
2	EVMALP-PS-N-10K	6,000 seats Mailbox Advanced Vault Search – Included w/ Mailbox Management Mfg Part#: Included in above p/n	\$0.00	1	\$0.00
3	EVMALP-PS-N-10K	6,000 seats of PST file migration to Vault Mfg Part#: Included in above p/n	\$0.00	1	\$0.00
4	EVMALP-PS-N-10K	6,000 seats of Public Folder Migration to Vault Mfg Part#: Included in above p/n	\$0.00	1	\$0.00
5	EVMALP-PS-N-10K	6,000 seats of Active Journaling to Vault Mfg Part#: Included in above p/n	\$0.00	1	\$0.00
6	EVDSV-3-C	Installation- Consultant On Site for 3 days*	\$6,600.00	1	\$6,600.00
7	EV-TRNG-BYO-T	Basic Technical Training, 1 Day On-site, per Person. 2 Day Minimum	\$1,600.00	2	\$3,200.00
8	KVS-SFO-STD-MNT	Premium Support and Maintenance 1year (24 x 7)	\$24,480.00	1	<u>\$24,480.00</u>
Sub Total					\$143,955.00

<u>Item</u>	<u>Description</u>	<u>Unit Cost</u>	<u>Estimated Quantity</u>	<u>Extended Cost</u>
Citrix Software				
9	Citrix MetaFrame Xpe 1.0-100U Conn Pack W/sub Adv Lev-c 400Pt (Total of 2000 users)	\$ 21,225.00	20	\$424,500.00
10	Vector ESP - Citrix Professional Services Hourly Rate – Citrix Network Engineer	\$ 185.00	280	\$51,800.00
11	Vector ESP Citrix Fixed Fee Support Agreement- Annual Enterprise Site Agreement	\$ 22,495.00	1	\$22,495.00
12	Metaframe Xp 1.0 For Windows Administration	\$ 1,531.00	6	\$9,186.00
Sub Total				\$507,981.00
Estimated Total Cost				\$651,936.00

Commercial Data Systems (TXMAS-3-70050)
50 S. Beretania St.
Ste. C-208B
Honolulu, HI 96813

<u>Item</u>	<u>Product Number</u>	<u>Description</u>	<u>Unit Cost</u>	<u>Estimated Quantity</u>	<u>Extended Cost</u>
Employee & CRM Self Service, eProcurement					
13	A37-WSPF4-08GQB	SFV480:4@900MHz Cu,8GB,2-36GB Sun Fire V480 Server 4 @ 900 MHz Cu, 8 GB memory, 2 - 36 GB, 1.0", 10,000 RPM, FC-AL disks, DVD, 2 power supplies. Standard Configuration.	\$29,396.00	6	\$176,376.00
14	X311L	NORTH AMERICAN/ASIA PWR CRD KT Localized Power Cord Kit North American/Asian	\$0.00	12	\$0.00
15	X6767A	2Gb PCI Single FC Ntwk Adapter Sun StorEdge 2Gb PCI single fibre channel network adapter, 200MB/s per channel with optical interface	\$1,680.00	12	\$20,160.00
16	SOLZS-090C9AYM	S9 SA ML Kit, SP, w/ Eng. Docs Solaris 9 System Administrator's media kit (latest release). Contains Multilingual CD & DVD Media & English Installation Documentation, SPARC Platform Edition.	\$67.00	6	\$402.00
17	W9D-A37-24-1G	Sun Fire V480 Server Upgrade to Gold Support + 7X24 On-Site Support 1 YR	\$3,600.00	6	\$21,600.00
18	SR9-XKL038A-IP	Cabinet, Sun Rack 900 Cabinet, Sun Rack 900 (This is an empty x-option rack without power.)	\$1,743.00	1	\$1,743.00
19	X6825A	Front Door, Sun Rack 900 Front Door, Sun Rack 900	\$287.00	1	\$287.00

20	X6849A	Pwr Dist Sys, Sun Rack 900 Power Distribution System (PDS), Sun Rack 900	\$1,722.00	1	\$1,722.00
21	X6828A	Pwr Cable, Dom., Sun Rack 900 Power Cable, Domestic, Sun Rack 900 (Four 20A cables)	\$116.00	1	\$116.00
22	WGSERVER- INSTALL	WKGRP SERVER INSTALL Workgroup Server Installation for 1 Server	\$1,175.00	6	\$7,050.00
23	A35-WBF2- 2GRB1	280R/2x1.2GHz/2GB/2x73GB/DVD Sun Fire 280R server, two 1.2GHz UltraSPARC-III processors, 8MB E-cache, 2GB (4 x 512MB) memory, two 73GB 10,000rpm HH internal FCAL disk drives, DVD. Two power supplies. Operating Environment pre-installed Solaris 8 & Solaris 9. Standard Configuration.	\$12,596.00	1	\$12,596.00
24	X1150A	Sun GigaSwift Ethernet UTP Gigabit Ethernet Network Interface Card for high-performance Cat 5 UTP and PCI applications with full IEEE 802.3 compliance.	\$697.00	2	\$1,394.00
25	X311L	NORTH AMERICAN/ASIA PWR CRD KT Localized Power Cord Kit North American/Asian	\$0.00	2	\$0.00
26	X6767A	Sun StorEdge 2Gb PCI single fibre channel network adapter, 200MB/s per channel with optical interface	\$1,680.00	2	\$3,360.00
27	SOLZS- 090C9AYM	S9 SA ML Kit, SP, w/ Eng. Docs Solaris 9 System Administrator's media kit (latest release). Contains Multilingual CD & DVD Media & English Installation Documentation, SPARC Platform Edition.	\$67.00	1	\$67.00
28	W9D-280R-24- 1G	Ent 280R System Upgrade to Gold Support + 7X24 On-Site support for 1 YR	\$2,371.00	1	\$2,371.00
29	SIGMA- INSTALL	WKGRP SERVER INSTALL Workgroup Server Installation for 1 Server	\$1,175.00	1	\$1,175.00
30	A35-WBF2- 2GRB1	280R/2x1.2GHz/2GB/2x73GB/DVD Sun Fire 280R server, two 1.2GHz UltraSPARC-III processors, 8MB E-cache, 2GB (4 x 512MB) memory, two 73GB 10,000rpm HH internal FCAL disk drives, DVD. Two power supplies. Operating Environment pre-installed Solaris 8 & Solaris 9. Standard Configuration.	\$12,596.00	3	\$37,788.00
31	X1150A	Sun GigaSwift Ethernet UTP Gigabit Ethernet Network Interface Card for high-performance Cat 5 UTP and PCI applications with full IEEE 802.3 compliance.	\$697.00	6	\$4,182.00
32	X6767A	2Gb PCI Single FC Ntwk Adapter Sun StorEdge 2Gb PCI single fibre channel network adapter, 200MB/s per channel with optical interface	\$1,680.00	6	\$10,080.00
33	X311L	NORTH AMERICAN/ASIA PWR CRD KT Localized Power Cord Kit North American/Asian	\$0.00	6	\$0.00
34	X7062A	OPT MEMORY 2GB (4*512MB) 2-Gbyte Memory Expansion Kit (4 x 512-Mbyte DIMMs) For use in Sun Fire 280R, Sun Blade 1000 and 2000	\$1,596.00	3	\$4,788.00

35	SOLZS-090C9AYM	S9 SA ML Kit, SP, w/ Eng. Docs Solaris 9 System Administrator's media kit (latest release). Contains Multilingual CD & DVD Media & English Installation Documentation, SPARC Platform Edition.	\$67.00	3	\$201.00
36	W9D-280R-24-1G	Enterprise 280R System Upgrade to Gold Support + 7X24 On-Site Support for 1 YR	\$2,371.00	3	\$7,113.00
37	SR9-XKL038A-IP	Cabinet, Sun Rack 900 Cabinet, Sun Rack 900 (This is an empty x-option rack without power.)	\$1,743.00	1	\$1,743.00
38	X6825A	Front Door, Sun Rack 900 Front Door, Sun Rack 900	\$287.00	1	\$287.00
39	X6849A	Pwr Dist Sys, Sun Rack 900 Power Distribution System (PDS), Sun Rack 900	\$1,722.00	1	\$1,722.00
40	X6828A	Pwr Cable, Dom., Sun Rack 900 Power Cable, Domestic, Sun Rack 900 (Four 20A cables)	\$116.00	1	\$116.00
41	SIGMA-INSTALL	WKGRP SERVER INSTALL Workgroup Server Installation for 1 Server	\$1,175.00	3	\$3,525.00
42	F12K-CAB3	Sun Fire 12K Server Cabinet Sun Fire 12K server cabinet with Fireplane, Fans, Power Supplies and System Controllers and updated Expanders	\$140,000.00	1	\$140,000.00
43	3800A	OPT PWR CORD FOR ENTERPR.(US) Power Cord for Enterprise System and Expansion Cabinet, U.S. Version (NEMA L6-30P Plug)	\$0.00	6	\$0.00
44	3858A	U.S. POWER CORD FOR STOREDGE U.S./Canada power cord for StorEdge expansion cabinet (NEMA L6-30P plug)	\$0.00	6	\$0.00
45	4610A	Top (Slot 0) Filler Panel F15K Top (Slot 0) Filler Panel for the CPU board slot in a Sun Fire 15K server	\$0.00	2	\$0.00
46	4615A	Bottom Slot1 Filler Panel F15K Bottom (Slot 1) Filler Panel in a Sun Fire 15K server	\$0.00	5	\$0.00
47	1150A	Sun GigaSwift Ethernet UTP Gigabit Ethernet Network Interface Card for high-performance Cat 5 UTP and PCI applications with full IEEE 802.3 compliance.	\$697.00	4	\$2,788.00
48	2222A	Sun(tm) Dual FE + Dual SCSI/P PCI Adapter with two Fast Ethernet Interfaces and Two SCSI Interfaces	\$1,117.00	2	\$2,234.00
49	4575A	hsPCI Assembly Sun Fire 15K Hot Swap PCI Assembly for Sun Fire 15K includes 4 Standard PCI Slots, two running at 66mhz and two at 33mhz, in 4 cassettes	\$6,300.00	2	\$12,600.00
50	6767A	2Gb PCI Single FC Ntwk Adapter Sun StorEdge 2Gb PCI single fibre channel network adapter, 200MB/s per channel with optical interface	\$1,680.00	2	\$3,360.00
51	CPUBD-442-1200	UNIBRD 4CPU@1200/4banks of 2GB Uniboard bundle with: 4 CPUs running at 1.2 GHz; 4x8MB Ecache; 4 banks of 2GB memory options (16 x 512MB DIMMs, 8GB total for the board).	\$81,620.00	3	\$244,860.00
52	1150A	Sun GigaSwift Ethernet UTP Gigabit Ethernet Network Interface Card for high-performance Cat 5 UTP and PCI applications with full IEEE 802.3 compliance.	\$697.00	2	\$1,394.00

53	2222A	Sun(tm) Dual FE + Dual SCSI/P PCI Adapter with two Fast Ethernet Interfaces and Two SCSI Interfaces	\$1,117.00	2	\$2,234.00
54	4575A	hsPCI Assembly Sun Fire 15K Hot Swap PCI Assembly for Sun Fire 15K includes 4 Standard PCI Slots, two running at 66mhz and two at 33mhz, in 4 cassettes	\$6,300.00	2	\$12,600.00
55	6767A	2Gb PCI Single FC Ntwk Adapter Sun StorEdge 2Gb PCI single fibre channel network adapter, 200MB/s per channel with optical interface	\$1,680.00	2	\$3,360.00
56	CPUBD-442-1200	UNIBRD 4CPU@1200/4banks of 2GB Uniboard bundle with: 4 CPUs running at 1.2 GHz; 4x8MB Ecache; 4 banks of 2GB memory options (16 x 512MB DIMMs, 8GB total for the board).	\$81,620.00	4	\$326,480.00
57	NS-XDSKS1-373GAC	StorEdge S1, 3x73GB, AC Sun StorEdge S1 Array. Rackable thin storage 1U high, 3x73GB disk array, 10Krpm hot-swap drives, Ultra2/3 SCSI to host, AC powered. (Standard Configuration)	\$3,944.00	2	\$7,888.00
58	X3831A	10M CABLE, SCSI TO VHDC 10-meter 68-pin to VHDC differential Ultra SCSI cable	\$137.00	2	\$274.00
59	SR9-KL038A-IP	Cabinet, Sun Rack 900 Cabinet, Sun Rack 900 (This is an empty x-option rack without power.)	\$1,743.00	1	\$1,743.00
60	3831A	10M CABLE, SCSI TO VHDC 10-meter 68-pin to VHDC differential Ultra SCSI cable	\$137.00	2	\$274.00
61	6825A	Front Door, Sun Rack 900 Front Door, Sun Rack 900	\$287.00	1	\$287.00
62	6828A	Pwr Cable, Dom., Sun Rack 900 Power Cable, Domestic, Sun Rack 900 (Four 20A cables)	\$116.00	1	\$116.00
63	6849A	Pwr Dist Sys, Sun Rack 900 Power Distribution System (PDS), Sun Rack 900	\$1,722.00	1	\$1,722.00
64	NS-DSKS1-373GAC	StorEdge S1, 3x73GB, AC, CTO Sun StorEdge S1 Array. Rackable thin storage 1U high, 3x73GB disk array, 10Krpm hot-swap drives, Ultra2/3 SCSI to host, AC powered. (Standard Configuration)	\$3,944.00	2	\$7,888.00
65	SOLZS-090C9AYM	S9 SA ML Kit, SP, w/ Eng. Docs Solaris 9 System Administrator's media kit (latest release). Contains Multilingual CD & DVD Media & English Installation Documentation, SPARC Platform Edition.	\$67.00	1	\$67.00
66	HA-F12K-PAK	F12K HAPAK BASIC- SITE&SERVER F12K CORE BASIC HAPAK for site & systemcentric platform integration mission critical support. Includes: ARS, SRAA (standard), EDU SKILLS PAK, PLAT.warranty upgrade, RAS profile, project delivery mgmt.	\$227,256.00	1	\$227,256.00
67	W9D-F12KBD4-NW-IP	Sun Fire 12K System Board with 4 CPU's, Upgrade to 1 year of Platinum support	\$1,853.00	1	\$1,853.00
68	CLUZS-999-99M9	SC 3.1 Base media kit latest Sun Cluster 3.1 Base Media Kit for SunPlex Systems latest. This part number always refers to the latest release of Sun Cluster 3.1 base software.	\$120.00	1	\$120.00

69	CLA9S-999-99M9	SC 3.1 Agents media kit latest Sun Cluster 3.1 Agents Media Kit for SunPlex Systems latest. This part number always refers to the latest release of Sun Cluster 3.1 Agents software.	\$120.00	1	\$120.00
70	CLSIS-LCO-C999	SunPlex svr lic for SF12k SunPlex server license for Sun Fire 12k. One license required per server.	\$57,900.00	1	\$57,900.00
71	CLAIS-XXF-9999	SunPlex agent lic for NFS SunPlex agent license for NFS Agent. One license required per cluster.	\$0.00	3	\$0.00
72	CLAIS-XXR-9999	SunPlex agent lic x HA Oracle SunPlex agent license HA Oracle agent. One license required per cluster.	\$3,200.00	3	\$9,600.00
73	CLAIS-XXG-9999	SunPlex ag lic x Scalable SAP SunPlex agent license for Scalable SAP Agent license. One license required per cluster.	\$6,400.00	3	\$19,200.00
74	CLAIS-XXL-9999	SunPlex ag licxHA SAPliveCache SunPlex agent license for HA SAP liveCache Agent License only. One license required per cluster.	\$6,400.00	3	\$19,200.00
75	ALW-20-S-O-F12-CNS	Eligible Sun or Competitive Server to F12K,	(\$213,870.00)	1	(\$213,870.00)
76	UG-RMA	RMA-DOC KIT RMA documentation kit	\$0.00	1	\$0.00
77	F12K-CAB3	Sun Fire 12K Server Cabinet Sun Fire 12K server cabinet with Fireplane, Fans, Power Supplies and System Controllers and updated Expanders	\$140,000.00	1	\$140,000.00
78	3800A	OPT PWR CORD FOR ENTERPR.(US) Power Cord for Enterprise System and Expansion Cabinet, U.S. Version (NEMA L6-30P Plug)	\$0.00	6	\$0.00
79	3858A	U.S. POWER CORD FOR STOREDGE U.S./Canada power cord for StorEdge expansion cabinet (NEMA L6-30P plug)	\$0.00	6	\$0.00
80	4610A	Top (Slot 0) Filler Panel F15K Top (Slot 0) Filler Panel for the CPU board slot in a Sun Fire 15K server	\$0.00	4	\$0.00
81	4615A	Bottom Slot1 Filler Panel F15K Bottom (Slot 1) Filler Panel in a Sun Fire 15K server	\$0.00	5	\$0.00
82	1150A	Sun GigaSwift Ethernet UTP Gigabit Ethernet Network Interface Card for high-performance Cat 5 UTP and PCI applications with full IEEE 802.3 compliance.	\$697.00	4	\$2,788.00
83	2222A	Sun(tm) Dual FE + Dual SCSI/P PCI Adapter with two Fast Ethernet Interfaces and Two SCSI Interfaces	\$1,117.00	2	\$2,234.00
84	4575A	hsPCI Assembly Sun Fire 15K Hot Swap PCI Assembly for Sun Fire 15K includes 4 STandard PCI Slots, two running at 66mhz and two at 33mhz, in 4 cassettes	\$6,300.00	2	\$12,600.00
85	6767A	2Gb PCI Single FC Ntwk Adapter Sun StorEdge 2Gb PCI single fibre channel network adapter, 200MB/s per channel with optical interface	\$1,680.00	2	\$3,360.00

86	CPUBD-442-1200	UNIBRD 4CPU@1200/4banks of 2GB Uniboard bundle with: 4 CPUs running at 1.2 GHz; 4x8MB Ecache; 4 banks of 2GB memory options (16 x 512MB DIMMs, 8GB total for the board). For use with the Sun Fire 3800, 4800, 4810, 6800, 12K and 15K.	\$81,620.00	2	\$163,240.00
87	1150A	Sun GigaSwift Ethernet UTP Gigabit Ethernet Network Interface Card for high-performance Cat 5 UTP and PCI applications with full IEEE 802.3 compliance.	\$697.00	2	\$1,394.00
88	2222A	Sun(tm) Dual FE + Dual SCSI/P PCI Adapter with two Fast Ethernet Interfaces and Two SCSI Interfaces	\$1,117.00	2	\$2,234.00
89	4575A	hsPCI Assembly Sun Fire 15K Hot Swap PCI Assembly for Sun Fire 15K includes 4 Standard PCI Slots, two running at 66mhz and two at 33mhz, in 4 cassettes	\$6,300.00	2	\$12,600.00
90	6767A	2Gb PCI Single FC Ntwk Adapter Sun StorEdge 2Gb PCI single fibre channel network adapter, 200MB/s per channel with optical interface	\$1,680.00	2	\$3,360.00
91	CPUBD-442-1200	UNIBRD 4CPU@1200/4banks of 2GB Uniboard bundle with: 4 CPUs running at 1.2 GHz; 4x8MB Ecache; 4 banks of 2GB memory options (16 x 512MB DIMMs, 8GB total for the board). For use with the Sun Fire 3800, 4800, 4810, 6800, 12K and 15K.	\$81,620.00	3	\$244,860.00
92	NS-XDSKS1-373GAC	StorEdge S1, 3x73GB, AC Sun StorEdge S1 Array. Rackable thin storage 1U high, 3x73GB disk array, 10Krpm hot-swap drives, Ultra2/3 SCSI to host, AC powered. (Standard Configuration)	\$3,944.00	2	\$7,888.00
93	X3831A	10M CABLE, SCSI TO VHDC 10-meter 68-pin to VHDC differential Ultra SCSI cable	\$137.00	2	\$274.00
94	SR9-KL038A-IP	Cabinet, Sun Rack 900 Cabinet, Sun Rack 900 (This is an empty rack without power.)	\$1,743.00	1	\$1,743.00
95	3831A	10M CABLE, SCSI TO VHDC 10-meter 68-pin to VHDC differential Ultra SCSI cable	\$137.00	2	\$274.00
96	6825A	Front Door, Sun Rack 900 Front Door, Sun Rack 900	\$287.00	1	\$287.00
97	6828A	Pwr Cable, Dom., Sun Rack 900 Power Cable, Domestic, Sun Rack 900 (Four 20A cables)	\$116.00	1	\$116.00
98	6849A	Pwr Dist Sys, Sun Rack 900 Power Distribution System (PDS), Sun Rack 900	\$1,722.00	1	\$1,722.00
99	NS-DSKS1-373GAC	StorEdge S1, 3x73GB, AC, CTO Sun StorEdge S1 Array. Rackable thin storage 1U high, 3x73GB disk array, 10Krpm hot-swap drives, Ultra2/3 SCSI to host, AC powered. (Standard Configuration)	\$3,944.00	2	\$7,888.00
100	SOLZS-090C9AYM	S9 SA ML Kit, SP, w/ Eng. Docs Solaris 9 System Administrator's media kit (latest release). Contains Multilingual CD & DVD Media & English Installation Documentation, SPARC Platform Edition.	\$67.00	1	\$67.00

101	HA-F12K-SYSPAK	F12K HASYS PAK - BASIC SERVER F12K CORE BASIC SYSTEM CENTRIC HAPAK FOR ADD-ONTO CORE BASIC HAPAK MISSION CRITICAL SUPPORT. INCLUDES 1-ARS, 1YR PLAT. WARRANTY UPGRADE, RAS PROFILE, PROJECT DELIVERY MGMT.	\$73,932.00	1	\$73,932.00
102	W9D-F12KBD4-NW-IP	SunFire 12K System Board with 4 CPU's, upgrade to 1 year of Platinum support	\$1,853.00	1	\$1,853.00
103	CLSIS-LCO-C999	SunPlex svr lic for SF12k SunPlex server license for Sun Fire 12k. One license required per server.	\$57,900.00	1	\$57,900.00
104	ALW-20-S-O-F12-CNS	Eligible Sun or Competitive Server to F12K, Customer must return trade-in equipment within 30 day, otherwise the allowance will be invoiced	(\$168,190.00)	1	(\$168,190.00)
105	UG-RMA	RMA-DOC KIT RMA documentation kit	\$0.00	1	\$0.00
106	Note	Cluster interconnect for the R3 cluster domain is two existing X1141A GBE PCI HBA'S. Customer is trading in a SF 4800 with 10@900Mhz and 20GB's Memory for this SF12K			
107	CLUZS-999-99M9	SC 3.1 Base media kit latest Sun Cluster 3.1 Base Media Kit for SunPlex Systems latest. This part number always refers to the latest release of Sun Cluster 3.1 base software.	\$118.00	1	\$118.00
108	CLA9S-999-99M9	SC 3.1 Agents media kit latest Sun Cluster 3.1 Agents Media Kit for SunPlex Systems latest. This part number always refers to the latest release of Sun Cluster 3.1 Agents software.	\$118.00	1	\$118.00
109	CLSIS-LCO-Y999	SunPlex svr lic SF4800/4810 SunPlex server License for SunFire 4800/4810. One license required per server.	\$15,500.00	2	\$31,000.00
SubTotal					\$1,821,172.00
Sun allowance SAR					(\$426,136.00)
Total Estimated Cost					\$1,395,036.00

ViOn Corporation TXMAS-3-70010
770 Saddleridge Drive
Wimberly, Texas 78676

<u>Item</u>	<u>Product Numbers</u>	<u>Description</u>	<u>Unit Cost</u>	<u>Estimated Quantity</u>	<u>Extended Cost</u>
Brocade Hardware					
110	BR-3801-0011	Brocade SilkWorm 3800 Fibre Channel Switch, Model: 3800, Includes 2 power supplies and 16 SFP's (2GB ports) per switch, rack mount kit, Automatic Web Tools and advanced zoning software.	\$20,702.00	8	\$165,616.00

111	N/A	36 month Service Contract 7 X 24 Coverage with 4 hour response time	\$0.00	8	\$0.00
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Estimated Total Cost	<u>\$165,616.00</u>
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CDWG Government Inc. (TXMAS-3-70040)
230 N Milwaukee Ave
Vernon Hills, IL

<u>Item</u>	<u>Product Number</u>	<u>Description</u>	<u>Unit Cost</u>	<u>Estimated Quantity</u>	<u>Extended Cost</u>
112	91270	Imation 9840 Tape Cartridge VOLSER from 047901 to 048100	63.35	1,800	\$ 114,030.00

Estimated Total Cost	<u>\$ 114,030.00</u>
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State of Texas DIR "Go Direct" Contract utilizing the following vendors:

Dell Computer Corp.
(DIR "GO DIRECT" Contract number 90131)
One Dell Way
Round Rock, Texas 78682

<u>Item</u>	<u>Description</u>	<u>Extended Cost</u>
113	Dell/EMC CX600 Storage Processor Enclosure Array including Software and Installation as per configuration id #635054	\$ 204,952.00
114	Dell/EMC DAE2 Disk Array Enclosure including Software and installation as per configuration id #635064	\$ 56,220.00

Estimated Total Cost	\$258,172.00
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SBC Data Comm. (DIR-VPC-03-029)
4119 Broadway, Room 460
San Antonio, Texas 78209

<u>Item</u>	<u>Product Number</u>	<u>Description</u>	<u>Unit Cost</u>	<u>Estimated Quantity</u>	<u>Extended Cost</u>
115	DS1412E10	Passport 8610 10 slot Chassis Bundle. Includes 8010 chassis, one 8004AC power supply, one 8691SF Switch Fabric and Routing Software License. (Includes North American power cord)	\$18,113.40	5	\$ 90,567.00
116	DS1404048	Passport 8600 Edge Switch Bundle -- 64 ports. Includes two 8632TXE modules and one 8691SF. Requires chassis, power supply and license.	\$23,338.23	5	\$ 116,691.15
117	DS1405E08	8004AC 100-240 VAC Power Supply. At least one power supply required per 8006, 8010, or 8010co chassis. (Includes North American power cord)	\$ 1,080.73	10	\$ 10,807.30
118	DS1404011	Passport 8616SXE Routing Switch Module. 16-port 1000BASE-SX Gigabit Ethernet interface module.	\$13,539.07	5	\$ 67,695.35
119	EB1639036	Alteon Switched Firewall 5710. Components: Switched Firewall Accelerator 5700, Switched Firewall Director 5010 (Formerly SFA-185 + iSD310-SFD). (See Note 1)	\$34,661.47	2	\$ 69,322.94

120	GH5300000459	7x24, 4-Hour Response Managed Spare Service for Alteon Switched Firewall	\$ 1,732.47	2	\$ 3,464.94
121	GH5300000478	7x24, 4-Hour Response Managed Spare Service for Passport 8600	\$ 6,179.55	2	\$ 12,359.10
122	GH5300000187	Passport 8600 10 Slot	\$ 9,444.89	5	\$ 47,224.45
123	A0994239	Advanced Installation and implementation for Passport 8600	\$ 5,200.00	5	\$ 26,000.00
124	BR 2941000	Implementation Service Package - Alteon Switch Firewall 5710	\$10,000.00	1	\$ 10,000.00
125	BR1682500	Consulting on Alteon Design/Implementation/Configuration with Microsoft ISA	\$200.00	80	\$ 16,000.00
					Sub Total \$ 470,132.23
					Promotional Discount -\$3,550.84
					Estimated Total Cost \$ 466,581.39

ESRI (DIR-VPC-03-004)
227 N Loop 1604 E Suite 100
San Antonio, Texas 78232

<u>Item</u>	<u>Description</u>	<u>Extended Cost</u>
126	On-site Geodatabase Design Meeting	\$17,036
127	Develop Logical Design Document	\$20,591.00
128	Develop Case Study Geodatabase	\$20,591.00
129	Prototype Pilot	\$8,014.00
130	Implementation Support	\$6,839.00
131	Application Development Design Meeting	\$10,355.00
132	Develop Functional Specification Document	\$11,480.00
133	Feature Class Extension	\$7,149.00
134	Address Tools	\$18,043.00
135	Plat Tool(s)	\$18,330.00
136	Prototype Review	\$16,904.00
137	Finalize Application	\$13,397.00
138	Delivery and Implementation	<u>\$10,304.00</u>
TOTAL		\$179,033.00

Sigma Solutions, Inc (DIR-VPC-03-010)
227 N Loop 1604 E Suite 100
San Antonio, Texas 78232

<u>Item</u>	<u>Product Number</u>	<u>Description</u>	<u>Unit Cost</u>	<u>Estimated Quantity</u>	<u>Extended Cost</u>
139	XT8-044-100204-01B	990 ShadowImage 2-3TB License	\$15,753.00	2	\$31,506.00
140	XT8-044-100236-01B	9900 Hitachi True Copy (TC) 2-3TB License	\$19,520.00	2	<u>\$39,040.00</u>
Estimated Total Cost					\$70,546.00

Estimated Grand Total\$ 3,300,950.39

A939-04
LB/clb