

RESOLUTION NO. 5358

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SOLEDAD APPROVING A TASK ORDER NO. 1 WITH APEX TECHNOLOGY MANAGEMENT, INC., IN THE AMOUNT OF \$66,267.74 FOR SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) SERVER AND OPERATING SYSTEM REPLACEMENT AND UPGRADES FOR THE CITY'S WATER AND WASTEWATER SYSTEMS

WHEREAS, the City's water and wastewater facilities are operated automatically via Supervisory Control and Data Acquisition (SCADA) systems; and

WHEREAS, on April 6, 2016, council authorized an Agreement with Apex Technology Management, Inc. for Two Years of Information Technology (IT) Management Services; and

WHEREAS, Apex has submitted a proposal in the amount of \$66,267.74 to provide software and labor to perform server and operating system upgrade work, which staff has reviewed and recommends approval of on a time and materials, not to exceed basis; and specifically based on level of effort expended only (not lump sum); and

NOW THEREFORE, BE IT HEREBY RESOLVED by the City Council of the City of Soledad, that the Supervisory Control and Data Acquisition Server and Operating System replacement task order proposal submitted by Apex, a copy of which is attached hereto as **Exhibit A**, and by this reference incorporated herein, is hereby approved, and the City Manager is authorized and directed to execute the same on Behalf of the City.

PASSED AND ADOPTED by the City Council of the City of Soledad at a regular meeting duly held on the 3rd day of January, 2018 by the following vote:

AYES, and in favor thereof, Councilmembers: Christopher Bourke, Mayor Pro Tem Alejandro Chavez, Anna Velazquez, Carla Stewart and Mayor Fred Ledesma

NOES, Councilmembers: None

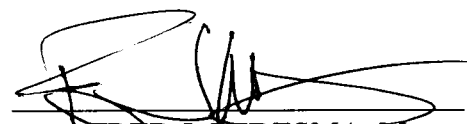
ABSENT, Councilmembers: None

ABSTAIN, Councilmembers: None

ATTEST:



MICHAEL McHATTEN, City Clerk



FRED J. LEDESMA, Mayor





310 Hemsted Drive
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Quote #:	APXQ25080
Date:	12/4/2017

Quotes are valid for 30 days

SCADA Hardware Upgrade

Prepared For:
Donald Wilcox
 City of Soledad
 248 Main St
 Soledad, CA 93960
 United States
 Email: DWilcox@cityofsoledad.com
 Phone: (831) 223-5173
 Fax:

Prepared By:
Kevin Wendland
 VCIO
 530-248-1024
kwendland@apex.com



Qty	Description	Unit Price	Ext. Price
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Products

2	Dell R540 Server Hosts	\$12,592.34	\$25,184.68 T
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*PowerEdge R540 Server
 PowerEdge R540 Motherboard
 No Trusted Platform Module
 3.5" Chassis with up to 8 Hot Plug Hard Drives
 PowerEdge R540 Shipping
 PowerEdge R540 Shipping Material
 Intel® Xeon® Silver 4114 2.2G, 10C/20T, 9.6GT/s 2UPI, 14M Cache, Turbo, HT (85W) DDR4-2400
 Intel® Xeon® Silver 4114 2.2G, 10C/20T, 9.6GT/s 2UPI, 14M Cache, Turbo, HT (85W) DDR4-2400
 Heat Sink already included
 2666MT/s RDIMMs
 Performance Optimized
 (4) 32GB RDIMM, 2666MT/s, Dual Rank
 C5, RAID 10 for HDDs or SSDs in pairs (Matching Type/Speed/Capacity)
 PERC H730P+ RAID Controller, 2GB NV Cache, Adapter, Low Profile
 (4) 1.8TB 10K RPM SAS 12Gbps 512e 2.5in Hot-plug Hard Drive, 3.5in HYB CARR
 BOSS controller card + with 2 M.2 Sticks 120G (RAID 1),LP
 VMware ESXi 6.5 Embedded Image on BOSS
 No Media Required
 iDRAC9 Enterprise with OpenManage Essentials, Server Configuration Management
 iDRAC Group Manager, Disabled
 iDRAC, Legacy Password
 Static IP
 1x FH, 4x LP, 2 CPU
 On-Board Broadcom 5720 Dual Port 1Gb LOM
 Intel X710 Dual Port 10Gb Direct Attach, SFP+, Converged Network Adapter, Low Profile
 No Internal Optical Drive for 8 HDD Chassis
 Dual, Hot-plug, Redundant Power Supply (1+1), 495W
 (2) NEMA 5-15P to C13 Wall Plug, 125 Volt, 15 AMP, 10 Feet (3m), Power Cord, North America
 PowerEdge 2U Standard Bezel
 No Quick Sync
 Performance BIOS Setting
 ReadyRails™ Sliding Rails With Cable Management Arm
 Program Management Fee*

Qty	Description	Unit Price	Ext. Price
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3 Years ProSupport with Next Business Day Onsite Service
Basic Deployment Dell Server R Series 1U/2U

1	VMware vSphere Essentials Kit v.6.0 - License - 3 Host (Up to 2 Processors Per Host)	\$543.71	\$543.71
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1	VMware vSphere Essentials Kit v.6.0 - Subscription License - 1 Year - 1 Year	\$75.30	\$75.30
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1	Tripp Lite Rack Enclosure Cabinet 6ft VRT Cable Manager Dbl Finger Duct - Black	\$135.71	\$135.71 T
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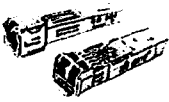



1	Backup Server	\$2,528.75	\$2,528.75 T
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PowerEdge R420 4-Port 3.5" Bay, 1U Rack Mount Server Chassis w/ 1-Year STI Limited Warranty
 Intel Xeon CPU Six-Core E5-2430 (2.2GHz, 15M, 7.20GT/s) - SR0LM (System Build)
 64GB Memory (QTY 8 - Major Brand - 8GB PC-12800R Dual Ranked DDR3 1600mhz Low Voltage Memory - (System Build)
 4TB 7.2K RPM SATA3 6Gbps 3.5" Enterprise Hard Drive w/sled (System Build)
 Broadcom 5720 Dual-Port 1Gb LOM (On Board) - Included by default
 Dell PowerEdge SlimLine DVD-ROM Drive - Dell Poweredge Servers (System Build)
 Broadcom BCM5720 Dual PCI-E 1GB Ethernet HH (System Build)
 Dell PowerEdge R420 - 550 Watt Power Supply - RYMG6 (System Build)
 14AWG 6ft Power Cord Cable 125V 15A NEMA 5-15P to C13 (3-Prong Male Plug to Server)
 PERC H710 6Gbps Integrated RAID Controller w/ 512MB NV Cache (System Build)
 1U 4 Post Rapid Sliding Rail w/Cable Management Arm for Dell PowerEdge R420 (System Build)
 Dell PowerEdge iDRAC7 Enterprise -Ethernet Port Card & License (System Build)
 3 Year STI Limited Warranty

2	Seagate STEB5000100 5 TB 3.5" External Hard Drive - Desktop - USB 3.0	\$147.79	\$295.58 T
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Qty	Description	Unit Price	Ext. Price
5	Tripp Lite 10ft Cat6 Gigabit Snagless Molded Patch Cable RJ45 M/M Black 10' - 10ft - 1 x RJ-45 Male - 1 x RJ-45 Male - Black <i>For BDR Server to switches</i> 	\$3.99	\$19.95 T
1	Cisco Catalyst 2960X-48TD-L Ethernet Switch - 24 Network, 2 Expansion Slot - Manageable - Twisted Pair - 2 Layer Supported - 1U High - Desktop, Rack-mountable - Lifetime Limited Warranty <i>Switch 1: 8 server, 2 sw trnk, 1 Rtr, 20 stations, 1 fiber, 1 UPS</i> 	\$3,480.51	\$3,480.51 T
3	Cisco SFP (mini-GBIC) Module - 1 x 1000Base-SX <i>1 for fiber connection 1 for host1 1 for host 2</i> 	\$388.09	\$1,164.27 T
1	Cisco SMARTnet - 1 Year Extended Service - Service - 8 x 5 Next Business Day - Exchange - Parts - Electronic and Physical Service 	\$364.29	\$364.29
1	Cisco Catalyst 2960-X 48 Gig PoE 740W, 4 x 1G SFP, LAN Base <i>POE switch wireless access points, 2sw trnk, 10 stations, 8 server</i> 	\$4,094.55	\$4,094.55 T
1	Cisco SMARTnet Extended Service - Service - 8 x 5 Next Business Day - Exchange - Physical Service 	\$429.49	\$429.49

Qty	Description	Unit Price	Ext. Price	
15	<p>Tripp Lite 6ft Cat6 Gigabit Snagless Molded Patch Cable RJ45 M/M Black 6' - Category 6 for Network Device - Patch Cable - 6 ft - 1 x RJ-45 Male Network - 1 x RJ-45 Male Network - Black</p>  <p>8 - Server to switch 2 x 4GB 3 - Server DRAC to switch 4 - Server management to switch (VMware are Managment) 2 x 3</p>	\$2.86	\$42.90	T
28	<p>Tripp Lite 2ft Cat6 Gigabit Snagless Molded Patch Cable RJ45 M/M Black 2' - 2ft - Black</p>  <p>22 - Switch to patch panel 6 - Switch to switch 2 x 3</p>	\$1.94	\$54.32	T
2	<p>Tripp Lite Rack Enclosure Horizontal Cable Manager Steel w Finger Duct 2URM - Cable Organizer - Black - 2U Rack Height - 19" Panel Width</p> <p>Cable mgmt between switch and patch panels</p> 	\$73.70	\$147.40	T
1	<p>Cisco 2960CX-8TC-L Layer 3 Switch - Manageable - 3 Layer Supported - Desktop, Rack-mountable, Rail-mountable - Lifetime Limited Warranty</p> <p>Switch for adjoining outside office</p> 	\$735.96	\$735.96	T
1	<p>Cisco SMARTnet Extended Service - Service - 8 x 5 Next Business Day - Exchange - Physical Service</p> 	\$71.41	\$71.41	
1	<p>SSL Cert for Remote Sonicwall SSL VPN - 5 Year</p> 	\$200.00	\$200.00	

Qty	Description	Unit Price	Ext. Price
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2	Tripp Lite 2M SFP+ 10Gbase-CU Twinax Passive Copper Cable SFP-H10GB-CU2M Compatible Black 6ft 6' - SFP+ - 6.56 ft - 1 x SFF-8431 Male SFP+ - 1 x SFF-8431 Male SFP+	\$39.20	\$78.40 T
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Server to 10GB Switch

1	SonicWall TZ300 Network Security/Firewall Appliance - 5 Port - 10/100/1000Base-T Gigabit Ethernet - DES, 3DES, MD5, SHA-1, AES (128-bit), AES (192-bit), AES (256-bit) - USB - 5 x RJ-45 - Manageable - Desktop	\$565.74	\$565.74 T
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TZ300 Network Security Firewall Higher broadband demands high-speed protection. These affordable firewalls let small businesses and home offices take full advantage of high-speed broadband, without compromising the highly effective protection needed to stop cyberattacks.

1	SonicWall Comprehensive Gateway Security Suite - SonicWALL TZ300 Network Security Firewall - Subscription License 1 Appliance - 5 Year License Validation Period	\$1,137.23	\$1,137.23
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SonicWALL





Comprehensive
Gateway Security Suite

2	SonicWall UTM SSL VPN - License - 1 User	\$43.75	\$87.50
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2	Tripp Lite PDU Metered 120V 15A 5-15R 13 Outlet 5-15P Horizontal 1URM - 13 x NEMA 5-15R - Zero U Vertical Rackmount, 1U Rack-mountable"	\$96.93	\$193.86 T
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Qty	Description	Unit Price	Ext. Price
1	Tripp Lite PDU Metered 120V 15A 5-15R 16 Outlet 5-15P Vertical 0URM - 16 x NEMA 5-15R - 1.8kVA - Zero U Vertical Rackmount 	\$108.80	\$108.80 T
4	PowerFlor Raised Access Floor <i>For both UPS's</i> 	\$18.75	\$75.00 T
Products SubTotal			\$41,815.31

Shipping & Handling

1	Shipping & Handling Charge 	\$150.00	\$150.00 T
Shipping & Handling SubTotal			\$150.00

Professional Services

1	Professional Services:  <i>See included "Exhibit A" for the scope of work.</i>	\$25,025.00	\$25,025.00
1	Total Support Platinum Discount 	-\$5,720.00	-\$5,720.00

Qty	Description	Unit Price	Ext. Price
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1	Travel & DecoExpenses (Lodging, Meals, Mileage)	\$1,580.00	\$1,580.00
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Professional Services SubTotal

\$20,885.00

	\$62,850.31
	\$3,417.43
TOTAL	\$66,267.74

Fixed Price Project: The total project price will be no more or less. Any possible exceptions will be noted. Project change orders will be billed separately above the project amount. This quote is valid for 30 days from date of issue. Advanced payment of all hardware and software greater than \$500 is required before purchase can be made. Check, credit card or electronic funds transfer are acceptable payment types.

We reserve the right to cancel orders arising from pricing or other errors.

Client Signature

Date

Exhibit A –Professional Services Scope of Work

Background:

Soledad water management is doing a project to replace their SACADA software. The new SCADA software requires a stable and secure server environment on which it can run. The networking and server computing equipment at water management is considered legacy and no longer supported by vendors. This project will require new networking and server computing equipment to deliver the necessary platform on which the new SCADA software can run safely and securely. The existing equipment in the Water server room is in need of cable management, labeling and basic organization.

Project Goals & Deliverables:

This solution is designed to provide the following major deliverables in order to achieve a more stable and secure environment that will aid the organization in their drive for success.

- Server Hardware
 - 2 physical production host servers running VMware vSphere 6.5
 - Each host will run a single Windows 2016 STD Server
 - HOST A: Production Server
 - HOST B: Development Server
- Networking
 - New 48 port Access switch with two 10GB interfaces for production and development servers
 - New 48 port access switch with power over Ethernet and multimode fiber gbic module for providing network fiber optic connectivity to adjoining office
 - New 10 port access switch with multimode fiber gbic module for providing network fiber optic connectivity with main building
 - Network Security: Create the following segmentation for security on the network
 - Management
 - SCADA secure/Domain
 - Camera Security
 - New internet firewall
 - VPN tunnel to city hall for data access from water to city hall
 - Configure the following gateway security
 - Configure DHCP for all local networks
 - Disable DHCP across T1 line
 - Remote worker access
 - SSL VPN configuration on the firewall
 - Deploy security SSL certificate on firewall for secure trusted remote access
 - Configure firewall to allow 2 local users access to SSL VPN group

- Configure SSLVPN to allow each user access to the new Production SCADA server IP address to allow for RDP connectivity
- Configure links to RDP to new server on the web landing page
- DNS address for SSL Cert to be provided by City of Dixon
- Power Protection
 - Install vertical PDU in enclosure to distribute power from batter backup
 - Install existing battery backup on side in enclosure
 - Install virtual appliance on backup host server to perform safe shutdown of all servers when only 10 minutes of battery life remains
 - Configure email alerting
- Backup and Disaster Recovery Solution
 - Install backup server host running VMware 6.5 with local storage
 - Configure backup jobs to encrypt backup files
 - Local backup jobs to retain for the new SCADA production server
 - 31 daily restore points
 - 13 monthly restore points
 - Offsite backup jobs
 - Retain 31 daily restore points offsite
 - Estimated amount of data change is 5-10GB
 - Assumptions:
 - Use storage on the existing City Hall backup server
 - Use existing 10mbps internet connection
 - Use existing 100mbps internet connection at City Hall
- SCADA Environment
 - Install and configure Production and Development servers with the following:
 - Windows Server 2016 Standard
 - Activate Windows OS License
 - Create local administrator for Wonderware vendor
 - Software
 - Monitoring and patching agent
 - Anti-virus software
 - Assign static IP address
 - Provide Credentials and remote access to Wonderware vendor
 - SSL VPN for 1 user
 - Local administrator credentials for servers

Scope of Work:

Phase 1: Staging

Phase 2: Onsite Installation

Exhibit A – Professional Services Scope of Work

- Network Installation – Day 1
- Server Installation – Day 2
- Cutover – Day 3

Phase 3: Wonderware vendor facilitation

Phase 4: Documentation and follow up

Phase 5: Decommission old SCADA servers

Project Design and Architecture

- Define impact, requirements and architecture design.
- Research and compile solution, invasive testing to confirm and validate solution.

Project Management

- Identify dependencies, risks and resources.
- Create project plan and schedule
- Ongoing monitoring and plan correction
- Manage project and status communications

Staging

- Receive hardware/software
 - Verify correct HW/SW
 - Document: Model/Serial No./Service Tag/License Key
- Install and configure HW/SW as necessary to prepare platform for customer installation (in-house)

Training & Documentation

- 1 hour client walk through of new software and hardware
- 1 page document showing new networking equipment and new credentials

Schedule of Work

This schedule is a generic schedule with estimated time frame for the length of time expected to complete the deliverables of this project. Once the schedule is confirmed and agreed upon by client and Apex, any changes to the agreed upon schedule will be considered a change from the original project scope and may lead to additional project costs (labor, shipping, etc).

	Deliverable
Week 1	Kick off meeting, Order Hardware
Week 2	
Week 3	Phase 1: Staging
Week 4	
Week 5	Phase 2: Onsite delivery and prep for cutover
Week 6	Phase 3: Cutover
Week 7	Follow up and Project Closure

Exhibit A – Professional Services Scope of Work

Other Information:

Client Responsibilities

- Administrative credentials to project related technical equipment for reference and/or configuration
- Physical access to site after hours
- Staff resources to test and consult during and after cutover periods
- Point of Contact for the organization to coordinate and distribute project related information to the organization
- Have available all software media and licensing necessary to complete the project deliverables

Vendor Dependency*:

- Phone vendor
- Wonderware vendor
- Security surveillance vendor

Each line-item contained in the vendor dependency section has an associate implementation budget. This implementation budget is based upon empirical data gathered from multiple mission-critical enterprise installations. This proposal is dependent upon three assumptions:

- 1) Timely access to and responsive cooperation with the vendor responsible for the software and/or hardware being installed and/or configured by Apex;
- 2) All hardware and software has been properly specified (interface, versions, etc.) by the responsible vendor, and is available at the time of installation;
- 3) Upon completion, the software and hardware specified by a third-party/application vendor performs as expected by the vendor and client.

The above assumptions define expectations that are considered outside of the control and responsibility of Apex Technology Management.

If, for any reason as outlined above, the time required to complete any vendor dependent task exceeds the time budgeted in this proposal, the client will be billed for the actual hours in excess of this budget at the pre-specified project rate.

Hardware Required Existing:

- UPS

Software Required Existing:

- N/A

Hardware Decommission:

- Hardware decommissioning will be handled by Apex
- The equipment will be removed and then wiped securely offsite
- The following equipment will be decommissioned (Securely wiped and disposed of)
 - Three Dell PowerEdge servers

Exhibit A – Professional Services Scope of Work

- Two Cisco 2950 switches

Project Invoicing

Apex reserves the right to invoice for work completed against a project/phase and receive a timely payment IF the project/phase extends beyond the scheduled completion date AND the project/phase delay is caused by the client OR vendor(s) directly or indirectly contracted by the client.