

City of Fayetteville Staff Review Form

2019-0801

Legistar File ID

12/3/2019

City Council Meeting Date - Agenda Item Only
N/A for Non-Agenda Item

Tim Nyander

11/15/2019

WATER SEWER (720)

Submitted By

Submitted Date

Division / Department

Action Recommendation:

Staff recommends the approval of the purchase of Supervisory Control and Data Acquisition (SCADA) hardware and software from multiple vendors in the amount of \$396,717.79 for water and wastewater operations, and approval a contingency in the amount of \$39,672.00.

Budget Impact:

5400.720.XXXX-XXXX.00	Water and Sewer																								
Account Number	Fund																								
02017.1	Sanitary Sewer Rehabilitation																								
Project Number	Project Title																								
<table border="0" style="width: 100%;"> <tr> <td style="width: 30%;">Budgeted Item?</td> <td style="width: 10%; text-align: center;">Yes</td> <td style="width: 30%; border-bottom: 1px solid black;">Current Budget</td> <td style="width: 30%; text-align: right;">\$ 5,593,747.00</td> </tr> <tr> <td></td> <td></td> <td style="border-bottom: 1px solid black;">Funds Obligated</td> <td style="text-align: right;">\$ 2,704,602.10</td> </tr> <tr> <td></td> <td></td> <td style="border-bottom: 1px solid black;">Current Balance</td> <td style="text-align: right; border: 1px solid black;">\$ 2,889,144.90</td> </tr> <tr> <td>Does item have a cost?</td> <td style="text-align: center;">Yes</td> <td style="border-bottom: 1px solid black;">Item Cost</td> <td style="text-align: right;">\$ 436,389.79</td> </tr> <tr> <td>Budget Adjustment Attached?</td> <td style="text-align: center;">No</td> <td style="border-bottom: 1px solid black;">Budget Adjustment</td> <td style="text-align: right;">\$ -</td> </tr> <tr> <td></td> <td></td> <td style="border-bottom: 1px solid black;">Remaining Budget</td> <td style="text-align: right; border: 1px solid black;">\$ 2,452,755.11</td> </tr> </table>	Budgeted Item?	Yes	Current Budget	\$ 5,593,747.00			Funds Obligated	\$ 2,704,602.10			Current Balance	\$ 2,889,144.90	Does item have a cost?	Yes	Item Cost	\$ 436,389.79	Budget Adjustment Attached?	No	Budget Adjustment	\$ -			Remaining Budget	\$ 2,452,755.11	
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V20180321

Purchase Order Number: _____

Previous Ordinance or Resolution # _____

Change Order Number: _____

Approval Date: _____

Original Contract Number: _____

Comments:



MEETING OF DECEMBER 3, 2019

TO: Mayor and City Council

THRU: Don Marr, Chief of Staff
Susan Norton, Director of Communications and Marketing

FROM: Tim Nyander, Utilities Director

DATE: November 15, 2019

SUBJECT: Purchase of Supervisory Control and Data Acquisition Hardware and Software for Water and Wastewater Operations

RECOMMENDATION:

Staff recommends the approval of the purchase of Supervisory Control and Data Acquisition (SCADA) hardware and software from multiple vendors in the amount of \$396,717.79 for water and wastewater operations, and approval a contingency in the amount of \$39,672.00.

BACKGROUND:

City Information Technology (IT), Utilities, and CH2M/Jacobs staff have been working on the review and re-design of the City's water and wastewater SCADA system for the past 18 months. The City has placed a priority on the following. We have focused the review on the following areas:

- Reliability, decreased maintenance
- Resiliency in by design (power, equipment, configuration)
- Focus on change management and leverage current industry standards
- Plug and play replacements
- Focus on consistent hardware, software, and programming methodology
- Cybersecurity
- Increased mobile access for staff
- Improved reporting
- Improved automation
- Future integration with Automated Meter Infrastructure (AMI)

DISCUSSION:

City Council approved an agreement with CH2M Hill Engineers, Inc. on October 1, 2019 to develop a new SCADA design, assist with the selection of new SCADA software, and develop a comprehensive list of hardware to support the new design. City staff and CH2M held a meeting at the West Side Wastewater Treatment plant on October 17th where CH2M's national SCADA team presented their network design, software, and hardware recommendations. City staff reviewed and provided several iterations of comments that CH2M integrated into their final recommendations. Staff is requesting approval to procure all software and hardware described in CH2M's SCADA recommendations.

The software and hardware items will be procured through various existing cooperative purchasing agreement already approved by the City Council, or through CH2M/Jacobs directly if they are able to provide the best price by leveraging their larger purchasing power. The SCADA specific software will be procured through CH2M/Jacobs due to their shared purchasing power and ability to obtain preferred pricing.

BUDGET/STAFF IMPACT:

Funds are available in the Sanitary Sewer Rehabilitation account within the Water and Sewer Fund.

Attachments:

Bill of Materials for SCADA Hardware and Software Purchases

Fayetteville Bill of Materials						
Updated: 11-15-19						
Site	DESCRIPTION	QTY	Manufacturer	TOTAL	Vendor	Contract
HARDWARE						
Noland	Hyper converged server	1	Nutanix	\$15,577.00	Jacobs/CH2M	Jacobs/CH2M
Noland	Hyper converged server 3 year hardware maintenance	3	Nutanix	\$3,687.00	Jacobs/CH2M	Jacobs/CH2M
Noland	SFP network module	6	Nutanix	\$132.48	Jacobs/CH2M	Jacobs/CH2M
Noland	Hyper converged server 3 year software maintenance	1	Nutanix	\$27,094.00	Jacobs/CH2M	Jacobs/CH2M
Noland	Freight Charges	1	Nutanix	\$550.00	Jacobs/CH2M	Jacobs/CH2M
West Side	Hyper converged server	1	Nutanix	\$15,577.00	Jacobs/CH2M	Jacobs/CH2M
West Side	Hyper converged server 3 year hardware maintenance	3	Nutanix	\$3,687.00	Jacobs/CH2M	Jacobs/CH2M
West Side	SFP network module	6	Nutanix	\$132.48	Jacobs/CH2M	Jacobs/CH2M
West Side	Hyper converged server 3 year software maintenance	1	Nutanix	\$27,094.00	Jacobs/CH2M	Jacobs/CH2M
West Side	Freight Charges	1	Nutanix	\$550.00	Jacobs/CH2M	Jacobs/CH2M
for Both	Backup server with 5 year hardware maintenance	1	Dell	\$14,568.50	National IPA	Res#273-18 Contract: 2018011-01
DMZ	Network DMZ Switch	1	Cisco	\$2,248.22	Cisco State Contract	Res#110-17 Contract:AR233
Spare	Firewall with 3 years support bundle	1	Fortinet	\$4,189.00	NETSource	Jacobs/CH2M
Canterbury	Firewall with 3 years support bundle	1	Fortinet	\$4,189.00	NETSource	Jacobs/CH2M
Noland	Firewall with 3 years support bundle	1	Fortinet	\$4,189.00	NETSource	Jacobs/CH2M
West Side	Firewall with 3 years support bundle	1	Fortinet	\$4,189.00	NETSource	Jacobs/CH2M
Noland	Firewall - Two Factor Authentication	1	Fortinet	\$624.00	NetSource	Jacobs/CH2M
West Side	Firewall - Two Factor Authentication	1	Fortinet	\$624.00	NetSource	Jacobs/CH2M
Noland	Network Switch- Internet and maintenance	1	Cisco	\$1,700.00	Converge One	Res#110-17 Contract:AR233
West Side	Network Switch- Internet and maintenance	1	Cisco	\$1,700.00	Converge One	Res#110-17 Contract:AR233
West Side	Network Switch- Edge Business and Maintenance	1	Cisco	\$3,040.89	Converge One	Res#110-17 Contract:AR233
West Side	Network Switch- Edge Voice and Maintenance	1	Cisco	\$1,890.71	Converge One	Res#110-17 Contract:AR233
Noland	Network Switch- Edge Business and Maintenance	1	Cisco	\$3,040.89	Converge One	Res#110-17 Contract:AR233
Noland	Network Switch- Edge Voice and Maintenance	1	Cisco	\$1,890.71	Converge One	Res#110-17 Contract:AR233
Noland	Core Network Switches and maintenance	2	Cisco	\$21,000.00	Converge One	Res#110-17 Contract:AR233
West Side	Core Network Switches and maintenance	1	Cisco	\$21,000.00	Converge One	Res#110-17 Contract:AR233
Noland	Network Stacking Modules	2	Cisco	\$1,653.00	Converge One	Res#110-17 Contract:AR233
West Side	Network Stacking Modules	2	Cisco	\$1,653.00	Converge One	Res#110-17 Contract:AR233
West Side	Fiber Network Switch and maintenance	1	Cisco	\$15,500.00	Converge One	Res#110-17 Contract:AR233
West Side	Fiber network SFP modules	24	Cisco	\$2,565.00	Converge One	Res#110-17 Contract:AR233
Noland	Network Time Server	1	TimeTools	\$1,570.00	TimeTools	Jacobs/CH2M
Noland	Network Time Server Maintenance	1	TimeTools	\$180.00	TimeTools	Jacobs/CH2M
West Side	Network Time Server	1	TimeTools	\$1,570.00	TimeTools	Jacobs/CH2M
West Side	Network Time Server Maintenance	1	TimeTools	\$180.00	TimeTools	Jacobs/CH2M
Noland	Network racks and cabinets	2	APC	\$4,366.38	CDWG	Res#273-18 Contract: 2018011-01
Noland	Network cable management	2	APC	\$400.00	CDWG	Res#273-18 Contract: 2018011-01
Noland	Rack PDU	2	APC	\$800.00	CDWG	Res#273-18 Contract: 2018011-01
Noland	Rack Environmental Sensors	1	APC	\$750.00	CDWG	Res#273-18 Contract: 2018011-01
Noland	UPS	1	APC	\$7,000.00	CDWG	Res#273-18 Contract: 2018011-01
West Side	Network racks and cabinets	1	APC	\$2,183.19	CDWG	Res#273-18 Contract: 2018011-01
West Side	Network cable management	1	APC	\$400.00	CDWG	Res#273-18 Contract: 2018011-01
West Side	Rack PDU	2	APC	\$800.00	CDWG	Res#273-18 Contract: 2018011-01
West Side	Rack Environmental Sensors	1	APC	\$750.00	CDWG	Res#273-18 Contract: 2018011-01
West Side	UPS	1	APC	\$7,000.00	CDWG	Res#273-18 Contract: 2018011-01
Both Sites	Wireless mesh radios	15	UBNT	\$1,485.00	CDWG	Res#273-18 Contract: 2018011-01
Both Sites	Desktop computers	4	Dell	\$4,979.52	DELL	Res#273-18 Contract: 2018011-01
Both Sites	Desktop computer monitors	8	Dell	\$96.00	DELL	Res#273-18 Contract: 2018011-01
Both Sites	Thin client computers	8	Dell	\$2,155.68	DELL	Res#273-18 Contract: 2018011-01
Both Sites	This client monitors	22	Dell	\$4,487.78	DELL	Res#273-18 Contract: 2018011-01
Both Sites	Cellular wireless modems (backup connectivity)	2	Sierra Wireless	\$1,178.00		Jacobs/CH2M
All locations	Patch Cables CAT6a			\$3,000.00		Jacobs/CH2M
	Hardware Total			\$250,867.43		
SOFTWARE						
Noland	Virtual Server Software	1	VMWare	\$4,625.00	VMWare	Res#213-17 Contract: ADSP016-130651
West Side	Virtual Server Software	1	VMWare	\$4,625.00	VMWare	Res#213-17 Contract: ADSP016-130651
Noland	Virtual Server Software	1	VMWare	\$510.00	VMWare	Res#213-17 Contract: ADSP016-130651
Noland	Backup Software	3	Veeam	\$10,147.68	NetSource	Res#213-17 Contract: ADSP016-130651
West Side	Backup Software	3	Veeam	\$10,147.68	NetSource	Res#213-17 Contract: ADSP016-130651
3 Sites	Windows Server Licenses	30	Microsoft	\$25,000.00	CDW	Res#213-17 Contract: ADSP016-130651
Both Sites	Remote access software	50	BeyondTrust	\$12,000.00		Jacobs/CH2M

Both Sites	Network Analyzer/Cybersecurity	1	CyberX	\$36,000.00	3 year term covers both plants, Special deal with CyberX through Jacobs	Jacobs/CH2M
Both Sites	Single sign-on appliance	1	Fortinet	\$1,495.00	Converge One	Jacobs/CH2M
Both Sites	Microsoft Office 365	1	Microsoft	\$2,000.00		Jacobs/CH2M
Both Sites	Disaster Recovery/Change Management software	120	MDT Software	\$39,300.00		Jacobs/CH2M
Software Total				\$145,850.36		
Grand Total Software and Hardware				\$396,717.79		