



SUNSHINE COAST REGIONAL DISTRICT

Question and Answers #3 Request for Proposal No. 2437016 SCADA Upgrades

Date: July 19, 2024

Item No. 1

Question: Are there any cyber security considerations at this time needing to be considered?

Answer: Currently our remote sites have either a cell modem, starlink or cable modem to get onto the internet. We then use a Netgate pfSense VPN box at each site to connect to our control network. . The Regional District is currently reviewing the security requirements and our intent is to go out to the market with a separate RFP for and organizational review. Any major red flags or areas we should be aware of would need to be identified by the successful Contractor under this contract.

Item No. 2

Question: Is pfSense a standard or paid subscription?

Answer: Standard subscription. We are currently trying to migrate all of our systems to pfSense. We use open VPN as our security protocol.

Item No. 3

Question: Are you paying for multiple iFIX licenses?

Answer: Yes, we have three licenses, two at Chapman WTP, one at Pender WTP and one for our 'Outside' SCADA system.

Item No. 4

Question: The current SCADA operating system appears to be out of date, do you have a preference?

Answer: No, the Proponent would be responsible for recommending an updated system.

Item No. 5

Question: Will all the hardware need to be updated?

Answer: Yes, however our 'Outside' SCADA System runs off a server that is located at the Regional Districts Field Road Office. the Contractor would make recommendations and the Regional District's IT division would build a VM to run the software and clients.

Item No. 6

Question: Are there only two workstations at the Chapman Site?

Answer: Currently yes. We need two viewing stations, and it would be preferred that others users can connect to the system without disconnecting the existing users. Instead bringing up their own instance, this would be the preference for all systems.

Item No. 7

Question: What is the VPN equipment you are using?

Answer: Ultra VNC

Item No. 8

Question: Where do you make edits from?

Answer: We can make them on site but primarily at the Mason Road office.

Item No. 9

Question: Does the office at Mason Road have a computer setup and does it require replacement?

Answer: Yes, it has a computer and no it does not require replacement.

Item No. 10

Question: Do you want PLC or hardware audits of each individual site?

Answer: Yes. Some of our PLC's(Allen Bradley SLC 500 and micrologix 1100) parts are becoming harder to come by for our units, we are open to alternatives We have a newer compact logix at our Pender Plant, however there is a link to a Direct Logic 205 that needs replacement.

Item No. 11

Question: Do you want to stay with the current systems and controls?

Answer: We want to standardize the system, we are open to recommendations for the best solution. The majority of our controls are Rockwell, we prefer Rockwell controls and or approved equivalent.

Item No. 12

Question: Do you have a master list off all your PLC?

Answer: No, but please see the preliminary list provided on page 5.

Item No. 13

Question: Do you have a lot of communication capabilities?

Answer: No, we currently use Modbus, Ethernet and some communication between plants is completed via a radio communication system which is the same model at every site. We need the ability to incorporate newer technologies such as IIoT.

Item No. 14

Question: Do you know if the existing system does polling reporting?

Answer: No, it does not.

Item No. 15

Question: Is upgrading the communication part of the cyber security or part of our recommendations to analyze?

Answer: Upgrading communications and recommendations for updating communications is part of this RFP.

Item No. 16

Question: Is your excel integrated into the SCADA?

Answer: No.

Item No. 17

Question: Are reports auto generated?

Answer: The existing system does not have that capability but we would like to have that function. We need historians for each system.

Item No. 18

Question: What time spans do you want to be able to pull reporting on?

Answer: A minimum of a year.

Item No. 19

Question: Is there any other software we should be aware of?

Answer: No just the iFIX. We eventually want to install cameras to look at the overflow of tanks inside the plants, therefore any system needs capabilities to incorporate equipment such as this.

Item No. 20

Question: Do you want the switches installed so you can add the cameras later?

Answer: Yes, that would be preferred.

Item No. 21

Question: Does the work include upgrading any of the instrumentation on site?

Answer: No.

Item No. 22

Question: What about remote HMI's, how many of them would need to be replaced?

Answer: Not many as we have been upgrading them already The majority of remote HMI's are Red Lion, we prefer Red Lion and or approved equivalent.

Item No. 23

Question: How many operators do you see needing to access SCADA simultaneously??

Answer: Up to 4 operators.

Item No. 24

Question: Are call out alarms required?

Answer: They are stated in the RFP and will require the Contractors to recommend new system. Some sites have protalk plus units and other sites use SCADADroids.

Item No. 25

Question: Do you use third-party alarm monitoring companies and what is there name?

Answer: Yes and Replay. Our Droids SMS message and the protalks call Replay, Replay then calls the on call operator.

Item No. 26

Question: It is unclear in the RFP deliverables if we will be providing equipment / hardware for our recommendations?

Answer: Yes.

Item No. 27

Question: Is the date for the Master plan completion flexible?

Answer: Yes, as we will not have the award until September, it is preferred that the work is completed by December 31, 2024.

Item No. 28

Question: Is there currently one station and one iFIX license at the South Pender Harbour Plant?

Answer: Yes.

Item No. 29

Question: How many monitors do you want for the viewing environment?

Answer: At least 2 per station.

Item No. 30

Question: Should the Pender Harbour site be a mirror of the Chapman site for set up?

Answer: Chapman Site needs to have two stations with two2 monitors each, while the Pender site just needs one workstation with two monitors. Each of the three systems needs to have redundancies.

Item No. 31

Question: In section 3.3.4, the RFP is asking for the proponent to provide a fixed price for implementation of the SCADA upgrades. However, the scope of these upgrades are not currently defined, as they are to be defined during the initial 3 phases of the project (sections 3.3.1 through 3.3.3). As such, it is not possible to provide a reasonable estimate for the scope of work for section 3.3.4. Can the scope of section 3.3.4 be omitted from the project and pricing?

Answer: Please see Q&A No.2 dated July 10, 2024.

SCADA System Upgrades – Inventory Summary

**please note this is not a complete list*

SITE	SOFTWARE	ADDITIONAL INFO	HARDWARE	TAGS/HISTORICAL/PAGES	NOTES
Chapman Water Treatment Plant	IFIX Version 3.5 Build 5717	Dynamo Factory Serial Number is 1440250	6 Allen Bradley PLC's 1747-L552C (SLC500's) and MicroLogix. Communication Starlink, wanting to standardize to Netgate VPN boxes to get onto control network	Roughly 1953 Tags 138 Historical 302 Pages	The hardware at this site needs to be upgraded for 2 view nodes and server, dual redundancy Historian needed.
Outside SCADA -runs all pump stations, reservoirs, chlorination stations and lakes	IFIX version 5.1 Build 6846 License number 200036910	The server running it runs Windows Server 2003, Standard Edition. The IGS server is Industrial Gateway OPC Server 7.54, version 5.4.139.0	Around 30 Allen Bradley PLC's. Majority MicroLogix 1100, 1400 and 1 CompactLogix 5380 Controller. Multiple ways of communicating from radio, cell modems and cable modems, needing assessment and upgrades.	Roughly 2074 Tags 215 Historical 120 pages.	-The hardware for the SCADA software will be built by us and our IT department on a virtual machine running on SCRD servers. -Specifications to come from consultant. Historian needed Redundancy needed
South Pender Water Treatment Plant	IFIX version 5.8 Build 8255	This machine has two physical keys, numbers 2002241105 and 200245432	1 Allen Bradley PLC CompactLogix 1769-L35E Controller. 19 I/O cards. Communication Starlink, wanting to standardize to Netgate VPN boxes to get onto control network.	Roughly 1247 Tags 78 Historical 112 Pages	Will need a hardware upgrade. Historian needed. View nodes and server with redundancy.

Site	PLC	Model	IP
Chapman WTP	WTP Controller	SLC-5/05	10.0.0.1
	Raw Water Booster	SLC-5/05	10.0.0.10
	OSHG	MicroLogix 1400	10.0.0.20
	UV	MicroLogix 1500	10.0.0.25
	DAF	SLC-5/05	10.0.0.40
Outside	MTU	MicroLogix 1400	10.20.100.2
	Langdale PS	MicroLogix 1100	10.20.100.10
	Langdale Reservoir	MicroLogix 1100	10.20.100.11
	Cemetery Reservoir	MicroLogix 1100	10.20.100.12
	Reed PS	MicroLogix 1400	10.20.100.14
	Chaster Well	MicroLogix 1100	10.20.100.15
	Henry Reservoir	MicroLogix 1100	10.20.100.16
	Chapman Creek	MicroLogix 1400	10.20.100.18
	Selma 1 Reservoir	MicroLogix 1100	10.20.100.19
	Chapman WTP CL2	MicroLogix 1400	10.20.100.20
	Roberts Creek PS	MicroLogix 1100	10.20.100.21
	Welcome Woods Reservoir	MicroLogix 1100	10.20.100.22
	Trout Lake Reservoir	MicroLogix 1100	10.20.100.23
	Sandy Hook PS	MicroLogix 1400	10.20.100.25
	Gray Creek Reservoir	MicroLogix 1100	10.20.100.26
	Caleta PRV	MicroLogix 1100	10.20.100.27
	Lee Bay WWTP	MicroLogix 1100	10.20.100.29
	Garden Bay WTP	MicroLogix 1100	10.20.100.30
	Garden Bay Reservoir	MicroLogix 1100	10.20.100.31
	Daniel Point PS	MicroLogix 1100	10.20.100.32
	Daniel Point Reservoir	MicroLogix 1100	10.20.100.33
	Francis Peninsula PS	MicroLogix 1100	10.20.100.35
	Soames Reservoir	MicroLogix 1100	10.20.100.40
	Soames Well	MicroLogix 1100	10.20.100.42
	Cove Cay PS	MicroLogix 1100	10.20.100.47
	Granthams WTP	CompactLogix5069-L320ER	10.20.100.50
Chapman Lake	Chapman Lake	MicroLogix 1100	10.30.0.8

Edwards Lake	Edwards Lake	MicroLogix 1100	10.30.1.15
South Pender WTP	SPWTP	1769-L35E CompactLogix5335E	10.40.100.100
	SPWTP	DirectLogix 205 (Needs to be replaced)	
Egmont WTP	Egmont WTP	MicroLogix 1400	10.20.101.36