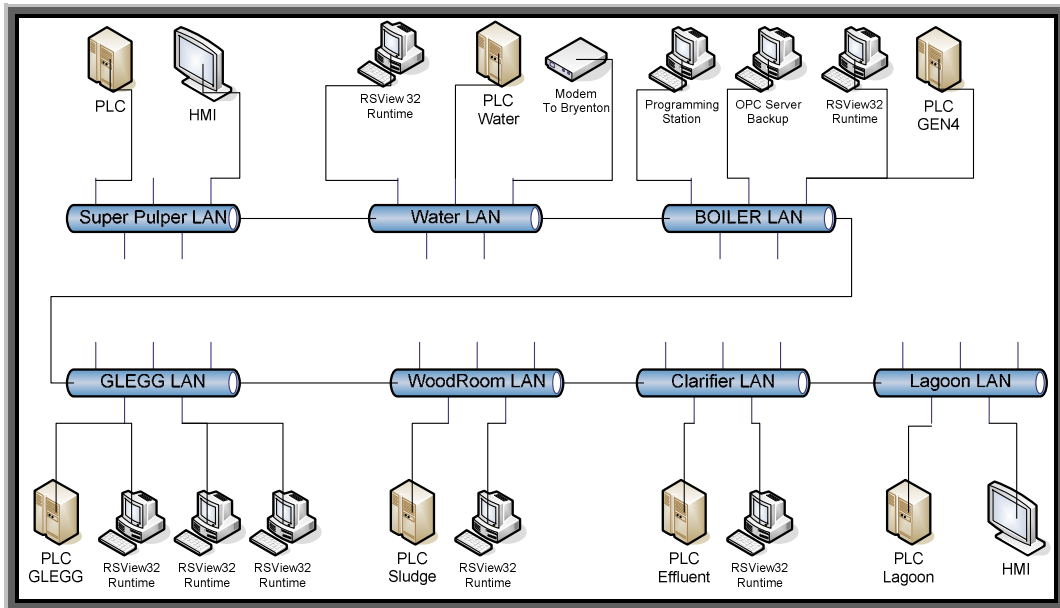


# SHADCOMM LTD. PROJECT PROFILE

## UPM Kymmene - Miramichi DH+ to Controllogix Ethernet Gateway Upgrade

Q2 - 2006



# UPM Kymmene - Miramichi

## DH+ to Controllogix Ethernet Gateway Upgrade

### Project Overview:

Shadcomm Ltd was awarded a project for the Supply and Installation of a new Network, and Monitoring system for the Water Treatment and Effluent systems at UPM. This involved the addition of Controllogix Gateways at all PLC5 processor locations, and the installation of a complete fiber optic backbone around the entire plant.

### Design:

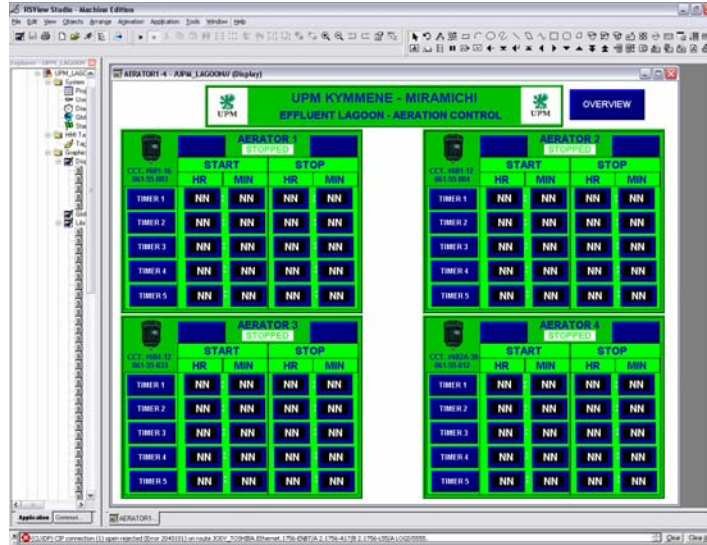
This was a design/Build project, with the original intent to replace all of the PLC5/40 processors, with Ethernet enabled PLC5 processors. In our proposal, which was accepted, we suggested that to save a significant amount of money, the project should use Controllogix Gateways instead of replacing the processors. The approximate cost of replacing the processors was \$14K per PLC. There were a total of 6 PLC's in the system. The total cost of this hardware would have been \$84K. By using the controllogix gateways, at a cost of approximately \$5K per PLC, the cost of this hardware was reduced to \$30K. This equated to a savings of over \$54K to the customer. There were also several other advantages, in that the Logic would not have to be moved, and a shutdown could be avoided on all 6 of these very critical Water treatment and effluent handling systems. As well, the Controllogix Gateway option, gave them the option of eventually upgrading their systems to controllogix by simply installing a processor in the Controllogix Rack, and converting the program. Basically, it would protect their investment.



As part of the project, the monitoring system was also upgraded. For this, Allen Bradley RSVIEW 32 HMI software was installed at a total of 7 supervisory locations around the plant. Each location had full access to all of the systems, allowing for a reduction in monitoring staff as well as some overlap. New Dell Precision desktops were installed, as well as a New File and Data server. All systems were connected together on a common network, which gave the E&I staff a central location to monitor and program all of the PLC's from.

### Installation:

Installation was started in the Summer of 2006. All of the fiber network was installed and tested, and the Controllogix gateways were put in place, and added to the network. The RSVIEW stations were programmed at our shop, and then a month was spent commissioning the system. The only work that required a shutdown, was the addition of 4 main supply pumps to the automated system. These feed pumps, which fed the entire plant with treated water, were previously unmonitored, and controlled on a manual basis. During the



September Shutdown, IO was added to the local Remote IO rack, and the 4 mill supply pumps were added to the system, allowing for remote monitoring and control of these pumps. This work was carried out in a very tight 8 hour plant wide outage.

**Conclusion:**

This project was very successful, and provided the plant with a future friendly solution, which did not sacrifice their existing investments. Though this plant is not shutdown, as of now the system is still operating to provide water and effluent treatment services for the boiler. It was also another great experience for our company, and helped us to gain more hands on Controllogix expertise.

**References:**

**Project Manager:**

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