KuibyshevAzot Chemical Plant – Volga River, Russia

Russian Chemicals Giant uses OPC DataHub to Link Yokogawa DCS to Proprietary System in QNX

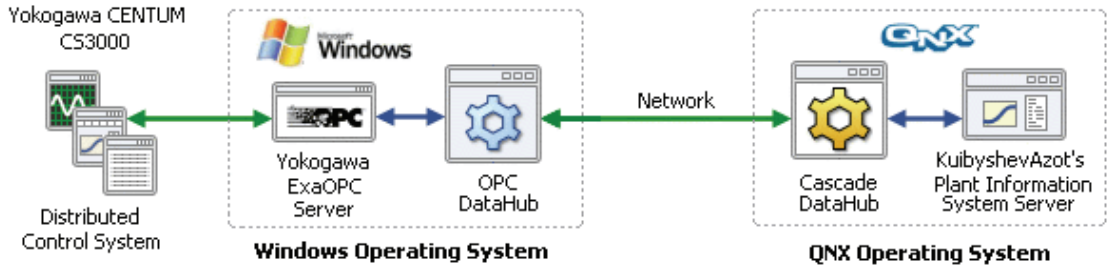
Deep in the heart of Russia, on the banks of the Volga River, stands one of the country's most successful chemical plants: KuibyshevAzot. Founded in 1966, the company produced over 1.7 million tons of chemicals last year, with sales volumes close to ½ billion dollars.

Through constant technology upgrades, the plant maintains the highest efficiency levels in all of Russia for ammonia production--and higher than average efficiency levels for nitrogen fertilizer production.

One of the goals at KuibyshevAzot is to update and re-equip the plant to optimize the consumption of raw materials and energy. To meet this goal they recently installed a Yokogawa CENTUM CS3000 Distributed Control System to control their ammonia aggregation process. They were satisfied with the performance of this state-of-the-art system, but there was one question – how to interface with their Plant Information System Server?

The Plant Information System Server is KuibyshevAzot's proprietary system that collects live tooling data, calculates technical and economic performance indicators, and generates reports—processing more than 900 variables simultaneously in real time. Due to its mission-critical status, the system runs on the QNX real-time operating system. Getting the data from the Yokogawa control system into the Plant Information System was vital to the overall success of the project.

To create the data link, KuibyshevAzot chose the OPC and Cascade DataHubs from Cogent Real-Time Systems.



Each of these DataHubs is an off-the-shelf middleware program that collects and distributes real-time data. The OPC DataHub runs in Windows, and can connect to any OPC server, such as the Yokogawa ExaOPC Server used in the project. On the QNX side, the Cascade DataHub was connected to the Plant Information System server. Once connected to their respective systems, the two DataHubs establish a TCP mirroring connection across the network to create a Windows – QNX real-time data link.

"This connection has saved us a lot of money in development time," said a company spokesperson. "The major requirement was to save our existing information system. The deployment of DataHubs saved us time and money because there was no need to purchase, develop, or configure a new information system. The update process was seamless. We kept our existing information display consoles and report forms. All we had to do was add more report forms and update the information displays."

"KuibyshevAzot needed something robust, something they could trust with their vital data," said Leonid Agafanov, Managing Director of SWD Software, Cogent's local distributor who was involved in the project. "Linking the Cascade DataHub in QNX to the OPC DataHub in Windows combined the strengths of both systems."

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The OPC DataHub is a highly optimized integration tool for real-time data. It provides quick, reliable and secure access to valuable process and production data and makes it available to management systems, database archives, and remote clients. Combining a number of innovative technologies, the OPC DataHub makes it easy for you to access the real-time data you need to make informed and timely decisions that save time, reduce waste, and increase profitability.

Founded in 1995, Cogent Real-Time Systems is the leader in real-time data integration between Windows, Linux and QNX systems. Customers include the Bank of Canada, Cadbury Chocolate and the European Space Agency. Cogent leverages its experience in real-time data communications to provide the next generation of OPC products. For more information, please contact Cogent at info@cogent.ca or visit our web site at www.opcdatahub.com. You can also call us at +1 (905) 702 7851.