

# Implementing an Enterprise Infrastructure for Managing Process Data in Real-time



## Background

Nalco Company is the world's leading water treatment and process improvement company, delivering significant environmental, social and economic performance benefits to a variety of industrial and institutional customers. Their programs and services are used in water treatment applications to prevent corrosion, contamination and the buildup of harmful deposits and in production processes to enhance process efficiency, extend asset life, improve customers' end products, and enhance air quality. With more than 7,000 technically trained professionals serving more than 70,000 customer locations in more than 130 countries, Nalco is focused on providing customers with sustainable, technologically advanced, engineered solutions and services.

## Challenge

Nalco's Energy Services division provides chemical services to many of the world's oil refineries. On site Nalco professionals work closely with the refinery operations personnel to monitor the performance of the chemicals being added to the process to ensure they are providing the appropriate levels of performance.

Although these refineries are highly automated, the data collected by Nalco's technology professionals to analyze performance is typically scattered throughout many islands of automation such as distributed control systems, laboratory information systems, instrumentation systems, inventory management systems, process historians, and other various plant databases.

## Solution

To capture this critical process data, Nalco turned to OSIsoft's PI System, the global standard in enterprise infrastructure for the management of time series data and events. OSIsoft has more than 14,000 installations in manufacturing, energy, utilities, life sciences, data centers and process industries. The highly scalable PI System infrastructure is built on Microsoft

Windows Server 2008 and integrated with SQL Server 2008. The PI System infrastructure also leverages Microsoft SharePoint Server, PerformancePoint Server and Microsoft Excel 2007 to efficiently transform operations data into intelligent information, empowering users to more easily collaborate across an enterprise, analyze and monitor the data, and solve complex process problems.

## Benefits

Using the PI System infrastructure to automate the data collection and archiving process relieves the on-site Nalco staff from the labor-intensive task of accumulating relevant data points and allows them instead to focus instead on customer solutions and satisfaction. For example, if a processing interruption occurs, real-time data captured in the PI System enables Nalco engineers to quickly analyze the information and focus on the root cause to quickly find a solution.

But most critically, Nalco can quickly substantiate the effectiveness of its chemicals, thus putting results directly into its customers' hands. "In the chemical process business, it's very important to document the performance of our chemicals that are used by our customers," said John Schlitt, Nalco's marketing manager for automation Energy Services Division.

## Conclusion

To standardize the implementation of the PI System infrastructure across their energy services division Nalco is utilizing OSIsoft's innovative PI System Software + Services enterprise agreement program. With a standardized PI System infrastructure, Nalco is able to centralize and structure data collection for their customers, so that local collection points may push the data to central locations.

"This solution allows us to offer our customers high-quality performance data, and allows them and our service engineers to optimize treatment programs for maximum cost/performance and sustainability credits, as well as benchmark their operations," said Steve Taylor, president, Energy Services Division, Nalco.