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North American energy provider cuts project implementation time by 50% by upgrading its AVEVA™ Enterprise SCADA pipeline monitoring and control system

Goals

- Upgrade existing systems to support efficient and safe operations of six pipelines.

- Expand the system to include two more pipelines.

- Accelerate upgrade time, decrease cost and risk, and improve project delivery tools and processes by working with the latest AVEVA Enterprise SCADA version.

Challenges

- SCADA software, operating system, and hardware required the company to perform a compete upgrade on its large pipeline management system to allow for expansion and ensure continued secure and safe operations.

- The back-up center was out of date, and needed enhancements to eliminate any single point of failure throughout the network to ensure secure, fail-safe operation.

- The company needed to perform upgrades efficiently and minimize the rollout timeline without compromising the safety or security of the critical infrastructure.

Solution

- AVEVA Enterprise SCADA, formerly OASyS SCADA

- AVEVA™ Project Delivery Services

Results

- Project was delivered three months ahead of schedule despite major unexpected, COVID-related obstacles.

- The new productized Enterprise SCADA version, new automated deployment tools, and the AVEVA team's responsiveness during the project ensured that the project was finished ahead of schedule and on-budget.

- The company saved 10% - 20% compared to its budget by avoiding schedule overruns, which would have otherwise occurred due to COVID challenges.

This case study concerns a major North American energy company that develops and operates energy infrastructure in Canada, the United States, and Mexico. Millions of people rely on the company to deliver energy to power their lives in a sustainable way. The company operates three core businesses: Natural Gas Pipelines, Liquids Pipelines, and Energy. AVEVA is the company's technology partner for pipeline management operations.

Upgrading monitoring and control system

One of the energy company's control centers had outgrown its existing capabilities. The software, operating system, and hardware needed to be upgraded to expand capacity and ensure continued secure and safe operations. In 2020, the company began the process of upgrading to AVEVA Enterprise SCADA.

AVEVA's new productized Enterprise SCADA version, automated deployment tools, high product quality, and project team's agility ensured a smooth and seamless upgrade. In spite of COVID-related hurdles, including network lockdowns, staff availability issues, travel restrictions, and a move to remote work, the new system was deployed remotely and across distributed teams–and went live on budget and ahead of schedule. The new AVEVA Enterprise SCADA system is easier to maintain and now supports upgradeable customizations.

The upgrade brought immediate, numerous benefits: First, the quality of the new Enterprise SCADA system nearly mitigated reported software issues. Second, the automated installation tools enabled test systems to be rapidly built to specification and without errors.

The testing capabilities combined with the templatized approach enabled the team to easily conduct thorough testing prior to deployment. This ensured a high-quality, replicable process that boosted management's confidence and saved the company around 20% in deployment and testing time.

Configuration times cut by 50%, project savings of 20% secured

By leveraging AVEVA's automated deployment tools, the team reduced the required install and configuration timeframe by approximately 50%.

By using templatized information to replicate systems across the company's various sites, they reduced the total install time for a SCADA system from one month to two weeks.
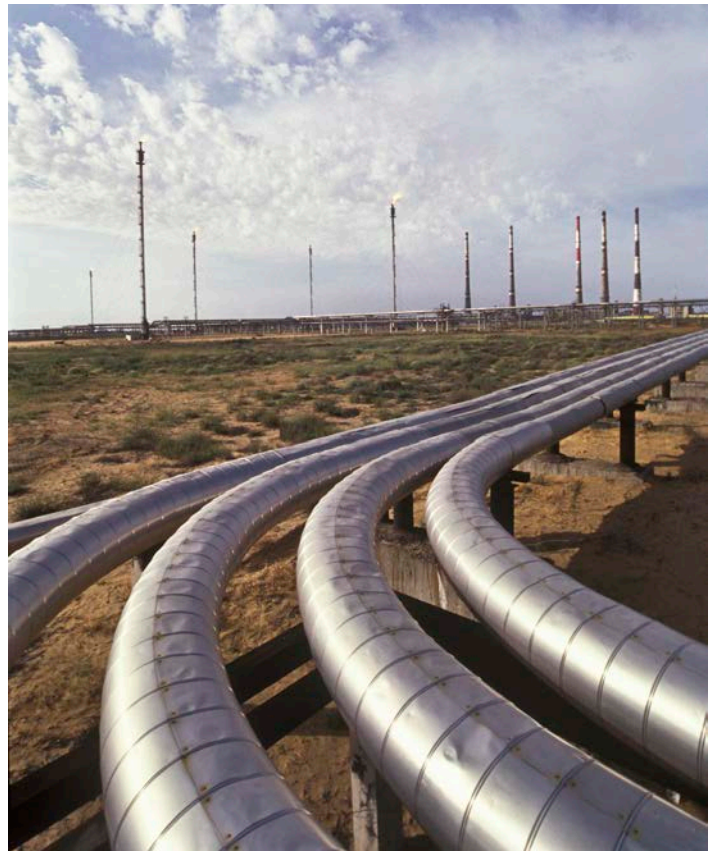
This time savings enabled the project to be completed three months ahead of schedule and saved the company 20% in project-related costs.

"Working with AVEVA Enterprise SCADA gives our whole team confidence of knowing that we continue to operate on the latest and best system, with the highest degree of safety and security for our critical operations now and into the future."
-

Project Manager

AVEVA

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AVEVA can support energy companies to be more sustainable. In 2018, the company's network suffered a pipeline leak of 10,000 barrels of crude in a section of their pipeline network crossing.

Using AVEVA's leak detection software, AVEVA Pipeline Integrity Monitor, which compares the real-time operating data against runtime computational models, the team managed to detect an anomaly (such as a potential leak) within four minutes.

This prompted an automated alarm and the pipeline operators in the field were able to shut down production in less than eight minutes.

The ecological savings of this rapid response are significant, and the financial impact is almost equally noteworthy. As a result of the digital warning system from AVEVA, the team minimized the environmental impact, reduced their clean-up costs and ensured that they retained local and regional goodwill for their operations, supporting their license to operate.

**To learn more, please contact your AVEVA representative
or visit us online at aveva.com/en/products/enterprise-scada**

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