Asia-Pacific Oil & Gas Company Drives Operational Excellence
PAS PlantState Integrity™ delivers significant gains in safety, reliability, and cost effectiveness with real-time remote monitoring of operations

About the Company
This Asia-Pacific based oil and gas company operates in over 20 countries in Africa, ASEAN, Asia, Australia, the Middle East, North America, and South America. The company has business imperatives for operational excellence as well as health, safety, and environment (HSE) performance.

Challenge
With oil prices holding well below historical $100/barrel and both regulators and society paying greater attention to activity and HSE performance, the company determined to reduce costs, deliver projects with discipline, and prioritize safety and asset integrity. This caused the company to embark upon a new and ambitious operational excellence, remote monitoring, and digitalization initiative to maximize safety, reliability, and cost efficiency. The objective was simple but profound: standardize efficient and effective processes across the entirety of its upstream business globally.

Addressing this challenge required new ways of collaborating across dozens of geographically dispersed sites, with very different operating practices. It also required the creation of a new Center of Excellence (CoE) at the company’s headquarters, which was chartered with centralized monitoring of site safety, reliability, and performance metrics and driving the adoption of best practices and learning across the organization. The CoE was also assigned the task of identifying any necessary investments that would be required to realize the objective of the high-priority initiative.

Solution
Beyond the creation of the CoE to provide and drive enterprise-wide collaboration and transparency of safety, reliability, and performance metrics, the CoE team quickly recognized the need for new technologies to support the initiative. They engaged seven vendors in a competitive evaluation with the key requirement to establish a single, integrated software solution that could

Business Benefits:
- 90% reduction in alarm rates, significant operator efficiency gains
- 93% reduction in SIF bypasses, standardized bypass governance
- Higher performing control loops through monitoring, analysis, and diagnosis of control valves in the field
- Visualization of all critical operating parameters and safe operating limits with reporting on violations
- Real-time monitoring of performance at each site and headquarters CoE
enable remote monitoring with comprehensive dashboards for alarm management, safety systems, control loop performance, and boundary conditions. The company also sought a solution that would help them implement the ISA 18.2 (IEC 62682) standard for effective and sustainable alarm management.

PAS PlantState Integrity was selected because it was the only solution that provided support for alarm management, independent protection layer (IPL) monitoring, control loop performance optimization, and boundary management as an integrated suite of applications. In the first year, the solution was deployed to several sites in the Asia region, and the project is now deploying to sites for the rest of the global upstream business.

Initially, and perhaps not surprisingly, there was concern from individual sites on exposing their operations to staff outside of the local plant. In one instance, a plant manager was surprised when the CoE team informed him of a large number of safety bypasses that were activated at his facility. However, he was able to work together with the CoE team to bring down the number of bypasses and safety risk at the plant. By taking a structured and collaborative approach with its operational excellence and digitalization initiative, the company is now better able to meet its broader corporate objectives for business profitability and sustainability.

The company now plans to extend its engagement with PAS to deploy additional capabilities to boost protection against industrial cybersecurity threats to further improve operating integrity and reduce performance risk.