
Middle eastern natural gas processing facility improves performance with ABB Ability™ Advanced Digital Services

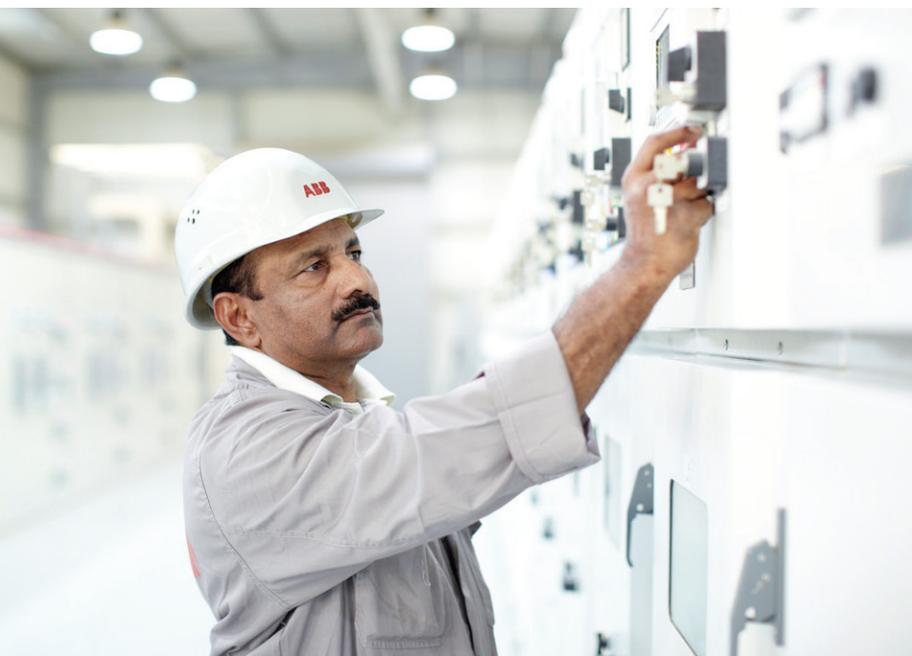


ABB Ability™ Advanced Digital Services help improve performance of world's largest Harmony Distributed Control System

Customer problem

A large natural gas processing facility in the Middle East requires uninterrupted operation. Processing volumes demand top performance from process control systems. However, production expansions and upgrades created uneven performance for the site's eight processing trains.

The customer wanted a single monitoring method to identify existing and potential process problems, as well as a standard method for troubleshooting these problems.

The facility has an ABB Harmony Distributed Control System and two third-party control systems. System performance degradation was difficult to detect because of the size and complexity of the plant (there are ~120,000 I/O points in the facility).

ABB solution

Performance Optimization for control systems – Harmony and Performance Optimization for control loops, that belong to the ABB Advanced Digital Services portfolio, provided the data gathering, analysis and troubleshooting methodology needed by the plant.

Performance Optimization for control systems – Harmony collects data from Harmony control systems and compares them to best-in-class operating conditions. After identifying areas that may improve system operation, customers may act directly on the data. The customer may also work with ABB to develop and implement a detailed improvement plan. Improvements can be sustained through periodic or continuous monitoring.

Performance Optimization for control loops is platform-independent and identifies control loop performance issues to improve control performance. The service examines key performance indicators in the process to identify areas of control degradation, and then plant personnel or ABB experts can use this analysis to identify control loops to tune and improve process performance.

Advanced Digital Services find areas that improve performance

Advanced Digital Services are a portfolio of remote-enabled, software-assisted services that generate actionable insights to optimize operations, increase productivity and enhance safety and security.

The customer uses these services daily to diagnose and resolve system and process issues, and to monitor system and process performance. Through these services, the customer was able to identify and correct issues that could have impacted production:

- A faulty bridge was identified as the source of a problem and corrective actions were put in place.
- An out of range controller was identified by monitoring CPU utilization range.
- Controller configurations were found to be inaccurate and corrected before an expansion was put into production.