Asset Analytics & Performance Benchmarks for Power
More reliable, productive, and profitable plants through data transformation

At-A-Glance

Solution Type
Transforming streaming power plant data into reliability and performance metrics for informed decisions with OSIsoft Connected Services.

Regions Available
Global

Industries
› Power Gen
› Oil & Gas (Upstream, Midstream, and/or Downstream)

Features & Benefits
› Reliability Benchmarking
› NERC GADS Reporting
› Customized Key Performance Indicators (KPIs)
› Operating Profile - Mission Data Thermal Performance
› Monitoring
› Maintenance Forecasts

Implementation Requirements
› PI System 2012 or later
› Asset Framework (AF)
› PI Cloud Connect

BUSINESS CHALLENGES

Every power plant requires data to make informed decisions and satisfy their numerous reporting requirements. While there is a tremendous amount of data available, organizing this data and turning it into actionable information is difficult and time consuming.

The varying metrics, output formats, and time periods required to satisfy key stakeholders further complicates efforts to derive insight from data. The person responsible for providing reports has a primary job to keep the plant operating, the reporting of data is secondary. Thus, it is important that plant operators and engineers have timely access to plant data in a shareable format because they often do not have time to manually manipulate reports.
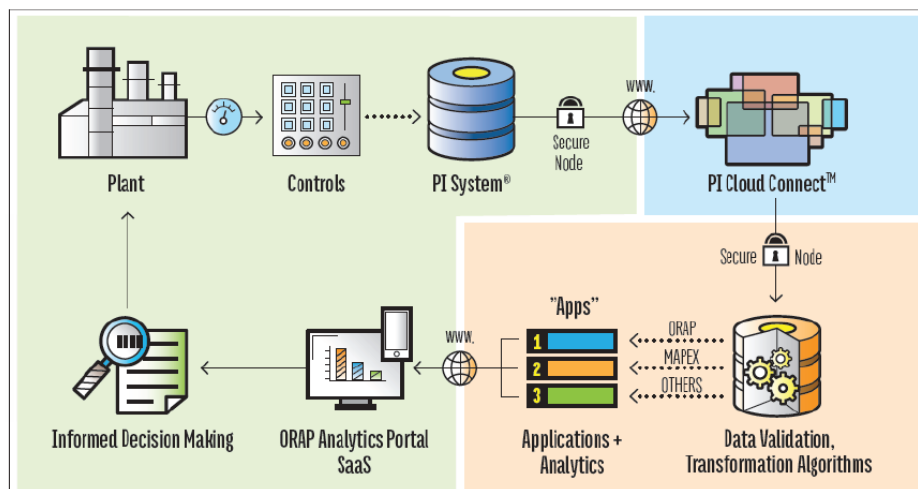

Run Your Plant, Not Reports

BUSINESS IMPACTS

SPS combines OSIsoft's real-time data collection with a proprietary datavaluation process and transformation algorithms to allow customers to make informed, data-driven decisions that contribute to their bottom line and provide a distinct advantage in the marketplace. Power plant owner/operators are able to benchmark themselves against their "peer fleet," track the age of parts, fulfill NERC GADS compliance, access on-demand reports for KPIs, project maintenance intervals, and better understand their operating profile in terms of start time, fuel used, and power output. All of this is done automatically, with little to no operator involvement.

SOLUTION APPROACH

Data flows from plant controls into a PI System. Once there, the plant initiates data transfer to ORAP through PI Cloud Connect. A Connected Services agreement between SPS and OSIsoft enables this data transfer. To access PI Cloud Connect, a "secure connect node" is installed within the plant's infrastructure. The data that flows between the secure connect node and PI Cloud Connect is protected by HTTPS communication with the SSL protocol. The data is then moved from PI Cloud Connect through a second secure connect node into the SPS data validation engine. The plant controls data flow at all times and at no point can SPS gain access to plant equipment. The raw data is then processed through SPS' custom algorithms and established data validation processes into the information required by each ORAP Asset Insight "App" that the plant chooses to use. The apps further process the data to provide the plant information needed to make business decisions. This information is summarized in a graphical format with detailed data backup available. All data is provided back to the plant via a secure online portal, ORAP Analytics, where all areas of the business can access their Reliability Performance Benchmarks, including best practices within the fleet, frequency of outage incidents, outage durations and causes, fleet based event details as well as top contributors to unavailability. The portal allows the plants to choose specific peer groups they wish to be compared against as well as customized date ranges. Plants can also specify custom KPIs relevant to specific business needs.

ORAP® ASSET INSIGHT™
Data First. Data Fast. Data Fidelity.

About the Partner EcoSphere

The OSIsoft Partner EcoSphere provides a collection of third-party services, applications, and technology to help customers maximize the value of the PI System.

Explore more solutions and the OSIsoft Partner EcoSphere at:
partners.osisoft.com.

For More Information

SPS are experts in the field of data collection, validation, analysis, and benchmarking of power plant performance across various technologies. They provide key performance metrics (KPIs), following industry standards, to plant owners, operators, Original Equipment Manufacturers (OEMs) and other industry stakeholders through the Operational Reliability Analysis Program (ORAP®). This information allows SPS customers to make informed business decisions relating to the performance and operational readiness of their equipment.

Visit spsinc.com or email inquiries@spsinc.com to speak with someone about ORAP.