

Major Metal Producer and Recycler Evaluates Operational Technology Strategy

In the wake of increasing market and regulatory pressures, a major metal producer and recycler partnered with MAVERICK to perform a comprehensive assessment. The result was a unified operational technology (OT) strategy and phased implementation plan.

Objective

The most critical step in the assessment was a comprehensive survey to determine the current state of the customer's OT systems and the primary emphasis of a unified strategy.

Results

Once the team defined the basis of the strategy, they built on the foundation with tiered historical data collection, upgraded control system equipment and software, security standards for OT that comply with IT standards, enterprise data analytics and an automated operations reporting system. Increased visibility into processing areas reduces waste and downtime. Standardized and controlled documentation disseminates tribal knowledge and best practices across plants.



Major OT Strategy Influences

Data collection among the facilities was inconsistent. Only a handful of facilities housed local historians. Of those plants with historians, the versions were variable and outdated.

Many of the control system hardware and software components had outlived their life expectancy.

In some cases, regulatory reporting relied on manual data entry into spreadsheets. In other cases, a propriety data collection and reporting application was available, but unsupported.

Enterprise connectivity did not exist for analytical analysis.

Communication and the availability of process information between the mill and the mine needed expansion to reduce upsets, waste and downtime.

The customer required centralized technical documentation be readily available to the appropriate plant personnel.

The team put together a plan to mitigate critical loss of knowledge from employee retirement and turnover.

Strategic Implementation Plan

Control System Upgrade: Replace obsolete controllers with ControlLogix® processors with Ethernet connectivity. Target I/O replacement completion in phases.

HMI/SCADA: Upgrade existing RSView®32 and out-of-date FactoryTalk® View applications with FactoryTalk View SE. Utilize centralized, redundant servers.

Historian Upgrade / Implementation: Advance existing FT Historians to latest version of FT Historian SE. Install FT Historian SE in plants with no historian. Implement an enterprise instance of FT Historian SE to aggregate plant summary data as the new data source for an enterprise analytics platform.

Plant Analytics and Reporting: Install FactoryTalk VantagePoint, Trend and Metrics for plant analytics and reporting. Migrate all regulatory instrumentation into the control system / historian for unified EPA reporting with VantagePoint.

Document Management: Implement an electronic document management system. Provide access via the VantagePoint Portal for plant users to create and archive tribal knowledge.

The MAVERICK Difference

A closely integrated team of customer representatives and the broad spectrum of MAVERICK resources from operational consulting, enterprise integration and automation solutions developed a holistic OT strategy that could be implemented in phases.



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