High performance. Delivered.

Large Government-owned Utility: Web-based Portal using Accenture Plant Performance Solution (APPS)

Client profile

This large government-owned utility is responsible for the production, transport and distribution of electricity to more than 4 million customers and approximately 900 users.

Business challenge

Responding to a need for updated equipment to maintain its fleet, the utility invested more than $650 million in corrective maintenance and new equipment for its installations. The work required equipment condition information to be analyzed in order to make maintenance decisions. The resulting condition-based maintenance management program would then be used for future power plants.

The program aimed to:

- Increase equipment availability by executing maintenance activities at the right time.

- Reduce periods of unavailability through the detection of early failures or potential breakdowns.

- Optimize the life cycle of equipment.

- Improve manpower performance.

- Allow the longevity of assets.

The utility selected Accenture for its Plant Performance Solution (APPS)'s success in helping large, electric utilities with equipment management. APPS is an integrated set of applications and processes establishing a central information hub and collaboration tool to optimize operations. APPS was developed with Avanade due to the Microsoft technologies involved (such as SharePoint) and, thus, Avanade came on-board to help with the solution.

How Accenture helped

The utility worked with Accenture and Avanade on the design, development and installation of a web-based portal, allowing the integration of resources and technological components within the solution. The initial phase of the program aimed to deploy the solution in one power plant of the fleet. More specifically, this phase's scope included the:

- Standardization of condition-based maintenance job plans.

- Inspection sheets.

- Inspection tasks (task dictionary).

- Data points.

- Tag nomenclature and data collection during inspections.

The portal also facilitated:

- Consultation of all inspection sheets and data points for a given piece of equipment.

- Installation of dynamic equipment screens allowing real time visualization of data points to provide condition measurements for specific equipment (e.g., what shape the equipment is in).

To speed the web-based portal's development and installation, ten specialists at Accenture's Global Delivery Center in Bangalore, India integrated the portal with multiple systems.

The Accenture team also benefited from using Oracle Service Bus during the integration, as it aided in the communications between the different systems. Oracle Service Bus converts complex point-to-point application integration into a simplified, agile, and reusable shared service application infrastructure.

High performance delivered

Accenture's solution provided the foundation for improved data quality, a necessity for subsequent phases of the program. Key features of the new application included:

- Automatic creation of tags for new or existing equipment, reducing the effort needed to create measurement points.

- Management and enforcement of tag nomenclature to make it easier for other applications to reuse the information.

- Development of a task dictionary to help employees follow the same inspection protocol and aid in training resources (even when working in different plants).

- Data collection from inspection. This information is now better kept and controlled (before it was kept on paper and now it is collected digitally).

- The ability to manage tag algorithms and, thus, better organize data.

The identified benefits to the power plants included:

- Inspection sheet's information reliability.

- Synchronized equipment information through several systems in the utility's production environment.

- Improved knowledge and visibility of equipment condition.

- Reduced costs associated with data points, or PI tag (each measurement point for a piece of equipment requires a PI tag and costs about a dollar per tag).

- Improved process compliance.

The solution was well received by major stakeholders, allowing operations and information management to run more efficiently, and equipment to be more effectively maintained, upgraded and reinstalled. The program is ongoing with Accenture providing application support.

About Accenture

Accenture is a global management consulting, technology services and outsourcing company, with more than 289,000 people serving clients in more than 120 countries. Combining unparalleled experience, comprehensive capabilities across all industries and business functions, and extensive research on the world's most successful companies, Accenture collaborates with clients to help them become high-performance businesses and governments. The company generated net revenues of US$28.6 billion for the fiscal year ended Aug. 31, 2013. Its home page is www.accenture.com.