CASE STUDY

Uniterruptable Power Supply
Six Sigma Process Improvement

OVERVIEW

Customer Profile:
This large Oil and Gas Company is a leading international supplier and licensor of process technology, catalysts, adsorbents, process plants, and consulting services to the petroleum refining, petrochemical, and gas processing industries

Business Situation:
Company is committed to process improvement to better serve its customers and achieve business success. UPS systems power critical company assets and process and were targeted for process improvement.

Solution:
Use PI Infrastructure to enable Six Sigma management of UPS systems.

Benefits:
- Accountable personnel are alerted in a timely manner of imminent or sudden UPS failure
- Critical UPS data, history and repair information are now immediately available to supervision, maintenance and service personnel
- Company saves money on the yearly UPS maintenance contract due to constant monitoring of UPS internal parameters
- Company has cut down on the number of unexpected power shutdowns due to malfunctioning UPSs, thus avoiding plant downtime, lost data and cost of poor quality

Background

Within the Company's main location, there are 250 Uninterruptible Power Supply (UPS) systems. To meet and exceed customer expectations, it is critical that the UPS systems function at high levels to ensure maximum uptime of critical company devices. These UPS systems provide power protection for millions of dollars of company data, intellectual property, eBusiness and plant operations.

Six Sigma is a comprehensive, flexibility methodology with a linked set of tools used to achieve, sustain and maximize business success. In particular, processes that operate with Six Sigma quality produce defect levels below 3.4 defects per one million opportunities. Six Sigma's implicit goal is to improve all processes to that level of quality or better.

The Solution: PI IT Monitor Infrastructure

Looking at the Six Sigma methodology, PI was used to automate the Control phase. The SNMP interface was used to collect performance data from Best and Powerware UPS systems. This data was analyzed in real time and based on business rules, created notifications and alarms. Data was also stored for future analysis. In addition to the benefits listed, the project proved that PI is an effective tool to implement Six Sigma projects for IT devices. PI Infrastructure easily provided access to critical information on company enterprise-wide systems.

Future Six Sigma IT monitoring projects under consideration include monitoring server room temperature/humidity, server instability, network connectivity, server memory, and server security monitor.