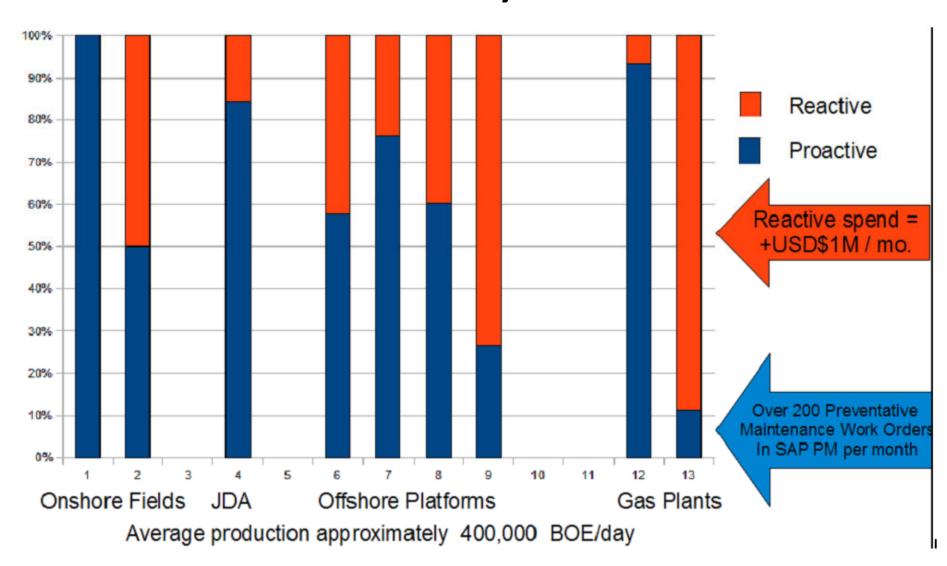
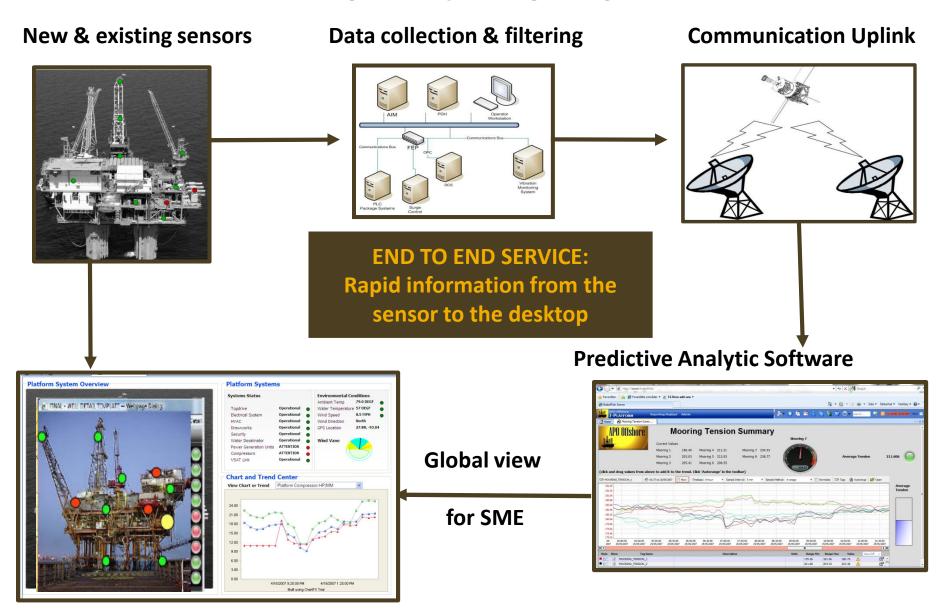
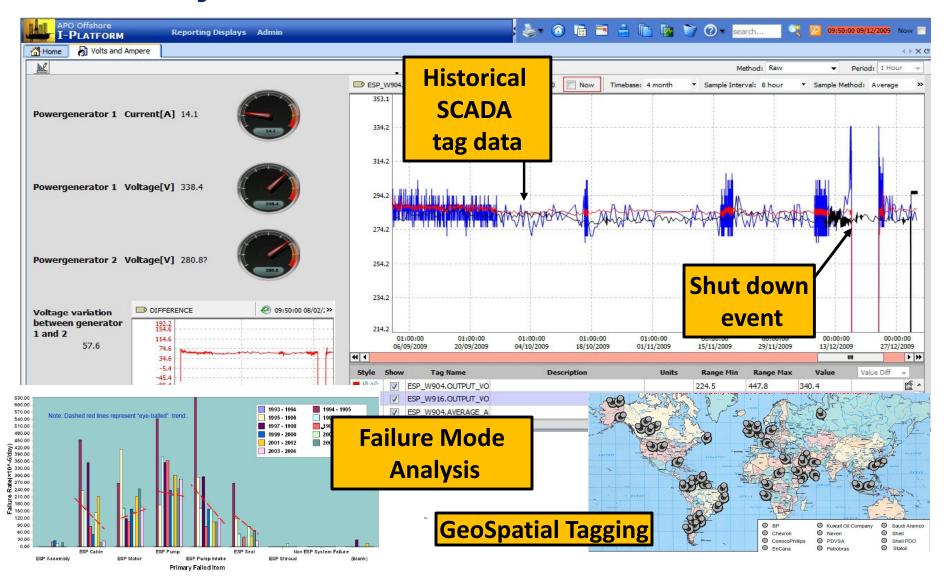
The Industry Issue:



How it Works:



Case Study: ESP



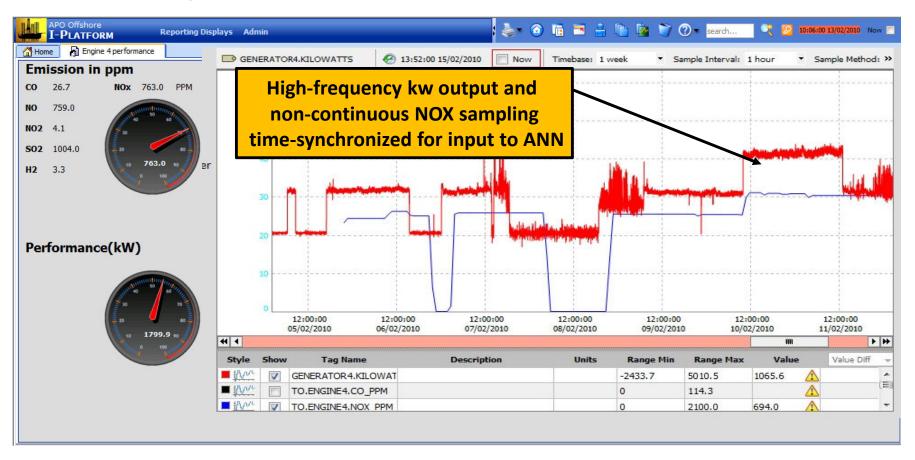
Goal: Extend ESP run life from 180 to 720 days, decrease workover costs by 4% = **USD\$20M / year**

Diagnostic Precursor Events, ESP Study



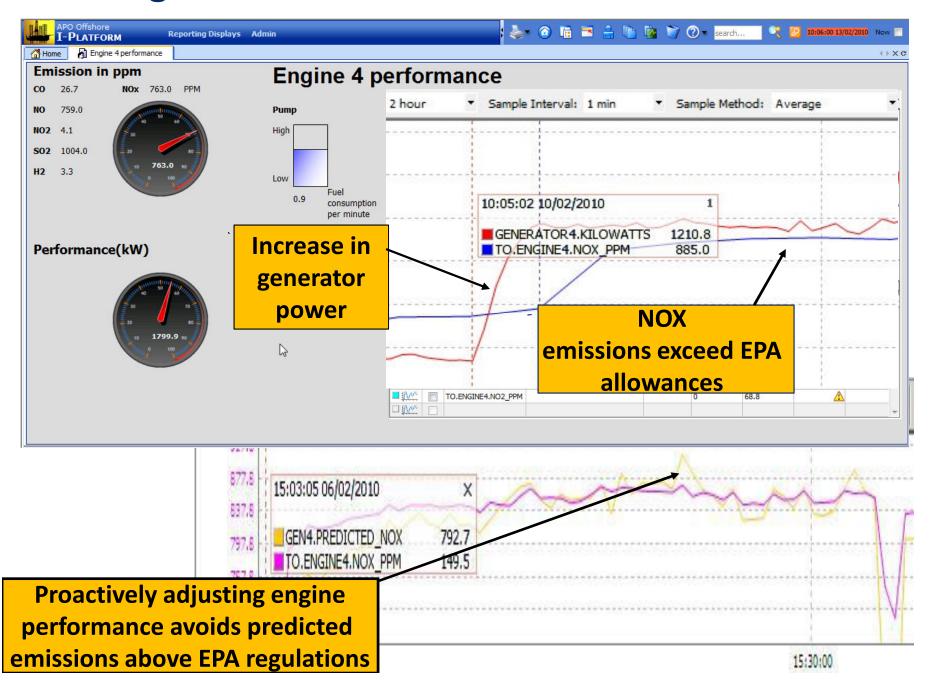
Pattern recognition by the neural network identified a complex series of events that did not exceed operator thresholds for current, temperature, or voltage, but when compared with a cubic trend line for two months before the event, were able to predict downtime in over 70% of failure cases in a given environment.

Case Study: Power Generation and Emissions



Objective: Run generators at maximum efficiency without exceeding EPA NOX emission levels, predict new optimum performance parameters when rigs move to new locales. Input to Artificial Neural Network: Generator Performance, Temperature, Pump Performance, Battery Voltage.

Avoiding an emissions event:



Predictive Analytics with GeoTagging

