Internet of Things App to Enhance Preventive Maintenance

AT A GLANCE

COMPANY- Global Resources

INDUSTRY– Mining

SOLUTION– Mobile Application to enhance preventive maintenance through Internet of Things (IoT) that integrates with SAP.

ABOUT UNVIRED:

Unvired delivers solutions to enable the Digital Enterprise. Unvired mobilizes SAP, Oracle, and other backend systems, enabling greater employee productivity and customer satisfaction. Headquartered in Houston, TX and with customers in N. America, Europe, South Africa, and APAC, Unvired is committed to its clients realize the benefits of enterprise mobility at a disruptively low cost and time to implement and continues to innovate in enterprise mobility.

BUSINESS CHALLENGES:

- Condition parameters such as Vibration, Temperature and RPM are recorded in the monitoring tool
- Inspectors manually read the data from the tool display and record the data
- Offline process - The recorded data collected during the rounds is then manually updated in SAP
- Manual entry led to inaccurate/missing data in SAP ERP, low visibility and huge Effort & Cost

SOLUTION:

- Developed Internet of Things app
- Enable automatic reading of sensor data in the mobile application
- Create measurement documents with the vibration, temperature and other sensor data automatically
- Save all the data offline on the mobile device and then automatically sync back to SAP and create Measurement Documents
- All manual processes eliminated in the inspection rounds
- Mobile Devices: Category 1 Division 2 ruggedized Windows Mobile Devices
- Technology:
    - Condition monitoring equipment from Pruftechnik
    - Interface via Bluetooth to the sensors
    - Interface developed in C++ and integrated with Java mobile application

PROJECTED BENEFITS:

- Enhanced Preventive Maintenance
- Reduced operational cost eliminating manual errors, paper work and manual data entry
- Increased data correctness
- Increased Compliance