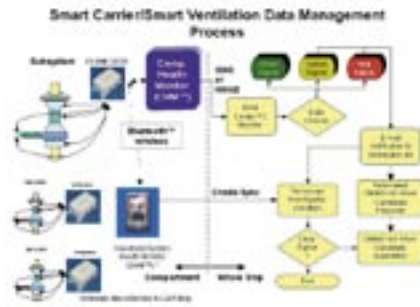




The ship's LAN infrastructure is leveraged to wirelessly integrate health monitoring with on-board scheduling and maintenance.



Reference Application

Bluetooth® Technology aboard USS CARL VINSON

Oceana Sensor Technologies, Inc. is a leading manufacturer of vibration sensors and Wireless e-Diagnostics™ systems for machinery health monitoring.

In co-operation with The Sigmon Group, LLC. and Antech Systems, Inc., Oceana Sensor installed its Wireless e-Diagnostics™ products on ventilation system components aboard the USS CARL VINSON (CVN-70).

Ventilation systems are distributed throughout the ship, providing cooling load for critical equipment as well as heating and cooling for sailor occupied spaces.

Traditional support of this equipment entails maintenance on a periodic schedule or corrective action when components fail.

Real time health monitoring

Using Wireless e-Diagnostics™, the ship's LAN infrastructure is leveraged to wirelessly integrate and automate real-time health monitoring with the Navy's on-board scheduling and maintenance software, SKED™.

Embedded expert rules provide prognostics, enabling the system to recognize impending problems itself, schedule maintenance and provide necessary email notification to appropriate personnel.

The installed system, based on Oceana Sensor's Wireless e-Diagnostics™, features the ICHM@ 20/20 data acquisition and processing node. Sensors are locally wired into the ICHM@ 20/20's, monitoring several parameters including fan vibration, inlet filter differential pressure etc.

Wireless communication to central system

Information is sent via Bluetooth technology to a Compartment Health Monitor (CHM™)

where sensor data are fused, databased and alarm thresholds are monitored. When fault conditions are detected, the CHM™ relays the information across the ship's LAN to the SKED™ software where the processes of work scheduling and email notification are automated.

Mobile access using Bluetooth PDA

Additionally, capability is provided for the sailor to locally troubleshoot and diagnose the systems using a Bluetooth enabled PDA, running applications to communicate with ICHM@ 20/20's.

The connectBlue Bluetooth hardware and software platform has been used by Oceana Sensor to Bluetooth enable the data acquisition nodes, ICHM@20/20, and the connectBlue Serial Port Adapter has been used to Bluetooth enable the Compartment Health Monitors, CHM™.



About connectBlue

connectBlue is a leading provider of wireless solutions for demanding applications in segments like industrial automation, medical, instrumentation, diagnostics, logistics / transportation, vehicles and point of sales. Based on Bluetooth technology WLAN and ZigBee, connectBlue provides ready-to-use products and modules as well as custom design solutions in both hardware and software. www.connectblue.se

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