

Remote management and breakdown prevention is the challenge

Businesses with dispersed facilities are faced with increasing levels of automation of remote equipment, very high expected uptime performance and de-manning of critical sites. In facilities such as electricity substations and wastewater treatment plants breakdowns are very costly and disruptive.

Measurement and timely awareness is the requirement

Obtaining detailed measurements remotely in real time is a major obstacle in achieving a true picture of equipment and process conditions to prevent costly breakdowns. Traditional hard wired retrofit approaches are generally too expensive or disruptive to install.

Wireless coupled with powerful alerting software is the answer

A wireless sensor network solution that supports standard sensor interfaces allows important parameters to be easily and continuously monitored. Data can be relayed off-site wirelessly and powerful monitoring and alerting software can present data and provide alarm information to staff wherever they are.

Key solution features include:

- Real time data from equipment and processes
- Connect to almost any type of sensor including flow, vibration, contact closure, pressure, etc
- Trend analysis for preventive maintenance planning
- Integration with local control systems
- Multiple remote sites on the same system
- Powerful overview graphics with drill-down capability for quick access to details
- Remote alerts using e-mail, SMS text and Skype

Wireless Sensor Network

The self-healing, self-forming features of wireless mesh sensor networks and battery powered sensors make installation quick and flexible whether for permanent use or temporary auditing spot checks.

Monitor the most important parameters

Wireless sensor nodes are available for monitoring temperature, humidity, flow, heat/cooling energy, electricity consumption, pressure, vibration, fluid level, water leaks, smoke detection, transformer oil condition, circuit breaker status, etc. Connections to standard 0-10V and 4-20mA sensor outputs accommodate an infinite range of sensor types.

Monitoring and control options

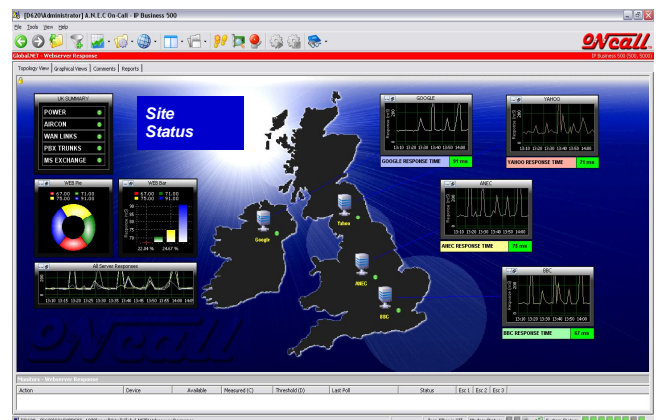
The wireless network supports both monitoring only and can also deliver wireless control via relays or analogue outputs.

Standalone or integrated solutions

Wireless systems allows sensor data to be integrated into existing BMS, SCADA or software monitoring systems. If standalone is preferred Adaptive can supply a complete system including software.

Wireless System Fieldbus Interface Options

Condition Monitoring data can be easily integrated with virtually any SCADA, BMS or monitoring application through Modbus, Profibus, CANbus, RS485 or direct I/O interfaces.



Real Time Monitoring Software

Adaptive's optional condition monitoring software provides continuous information about equipment availability, status and performance.

Data analysis

Powerful and flexible calculation and correlation tools permit real-time analysis of collected data and presentation of results as multi-parameter graphs or tables in engineering units.

Alarms and alerts

Fully configurable alarm thresholds and auto recovery system eliminates false alarms. SMS and E-mail notification provide status information where you need it for action.

See your data the way you want it

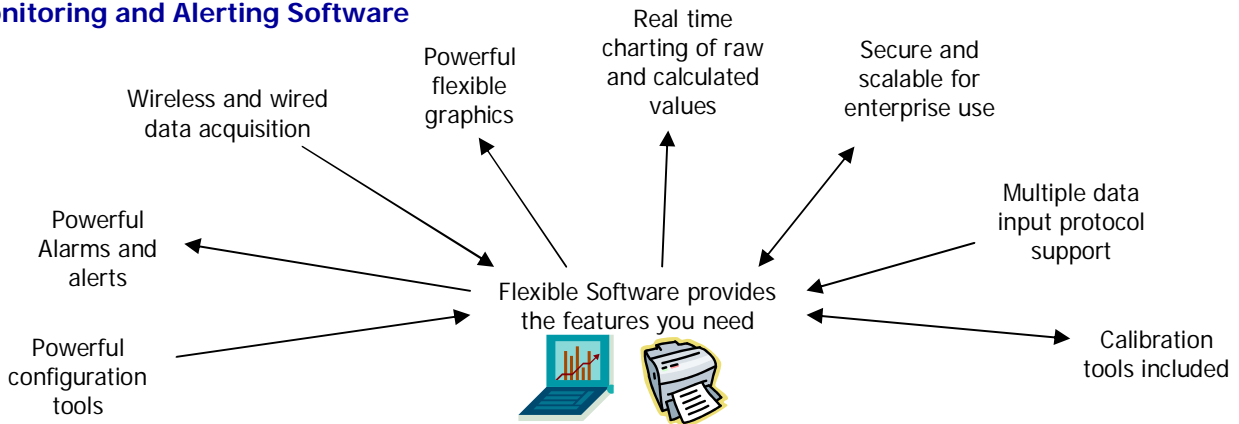
'Drag and drop' configuration and the ability to use any image or drawing mean that data on screen is immediately understood.

On-site or web-based options

Using either locally installed or web-based hosted implementations Adaptive's condition monitoring software can be provided in the way that best suits your business.

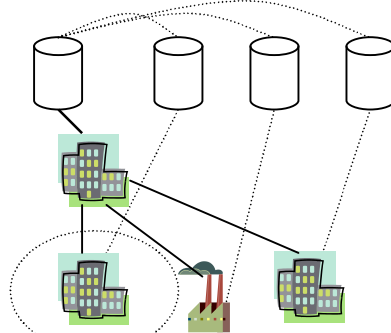
Comprehensive. Flexible. Integrated

Monitoring and Alerting Software



Single or multiple on-site or hosted databases connected via Internet, WAN or GPRS.

Single facility, campus or multiple sites. Central and site-level data management and reporting

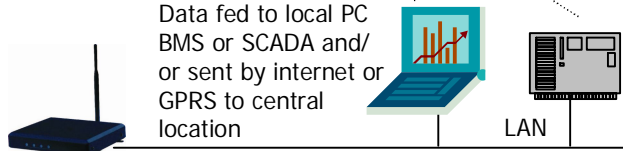


Asset Data Acquisition at site level

Local wireless gateway to BMS, SCADA system or monitoring software

Data fed to local PC BMS or SCADA and/or sent by internet or GPRS to central location

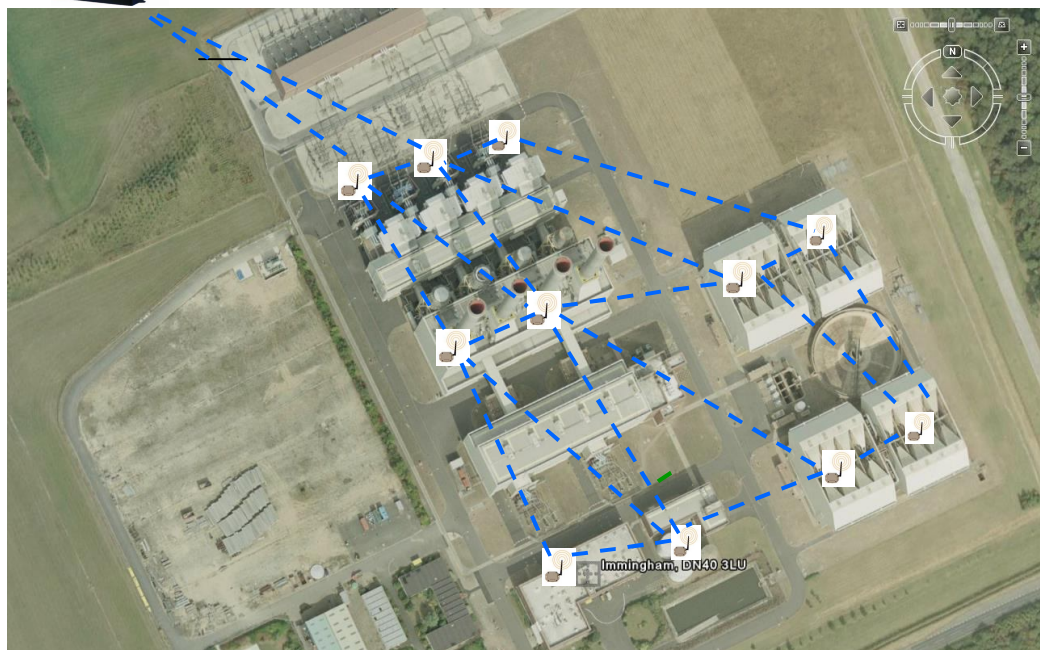
Site BMS or SCADA



Wireless mesh network connects sensors to wireless gateway

Wireless, wired or LAN-connected local telemetry

One to hundreds of sensors per site. Additional sensors easily added at any stage.



Monitor all plant including transformers, compressors, cooling towers, air systems, rotating machinery, etc. Adaptive Wireless systems are very reliable and unaffected by electromagnetic interference.