

## Remote Monitoring of Power Generators

Many facilities, such as hospitals, banks, and data centers rely on continuous electrical power to maintain operations of critical systems. Many of these facilities use backup generators to provide power in the event of a municipal power failure. However, these backup generators can only be effective if they can come on line as soon as grid power fails. Generators and power systems can be equipped with monitoring hardware, such as the Cimtec Sentinel 3000.

The Cimtec Sentinel 3000 is a wireless remote monitoring and control system that is fully integrated and ready to deploy. It uses a cellular-based Industrial internet alarming and notification system to alert facility managers of any change in status of the system being monitored. The Sentinel 3000 is a unique blend of serial and IP communications options, digital and analog inputs, pre-integrated battery back-up and weatherproof enclosure that form a simple, cost effective, “report-by-exception” solution for remote monitoring of fixed and mobile assets, machines and processes of all kinds. Some of the pre-built applications for the Sentinel 3000 include:

- Capture digital inputs & pulses
- Receive and store serial data
- Log, count or totalize input events
- Monitor analog sensor range
- Alarm on inputs status change or set points
- Alarm on serial data streams
- Send alarms via text messaging/e-mail/FTP
- Send log/counts via SMTP/FTP
- Manual or triggered relay control
- 120 VAC power monitoring standard

### Cimtec Sentinel 3000 and Power Generators

Commercial standby power generators contain electronics that automatically start the generator if power fails. While this action happens automatically, facility staff needs to be alerted to the power failure. The Cimtec Sentinel 3000 is connected to the generator control panel circuitry, and can automatically notify specific personnel that the generator has been activated in the event of a power failure. The Sentinel 3000 can also provide status updates such as generator run time and fuel levels. This allows facility staff to be alerted immediately to a power failure and to ensure that the generator is running optimally to provide the needed backup power to critical systems. Status changes can be sent via email, text, and/or pager to the relevant staff.

The Sentinel 3000 can provide many other status messages to facility staff, including generator temperatures (whether low, normal, or high), oil pressure indication (low, normal,



or high), low coolant level, and battery status.

In addition to these functions, the Sentinel 3000 can be connected to the remote annunciator panels that are installed on some generators to indicate the status of the generator and generator switch, allowing this information to be viewed remotely.

### **Sentinel Plus Remote Monitoring Software**

The status of the generator can also be accessed via the Sentinel Plus software package. This web-based application allows facility staff to monitor the current status of all backup generators and generate reports summarizing their use through a specified time period. Sentinel Plus can also be used to review past alarms, map out all monitored units, and set up notification alerts, so the right messages go to the right people to get problems addressed fast.