



## **CELLWATCH FRONTIER™**

### Automated Daily Battery Monitoring for Telecom

**Cellwatch Frontier is the most effective battery monitoring system for remote sites available on the market today.** The system provides daily testing and monitoring of all batteries at distributed sites like cell towers. It can monitor multiple battery strings including backup for communications equipment, generator start, and switchgear. Cellwatch Frontier is the only solution that can monitor 1.2 to 16 volt batteries for short and long duration loads with a single system.

#### **Eliminate unplanned outages due to battery failure**

Increasingly, mobile carriers and tower operators rely on automated battery monitoring to ensure that backup power systems will carry the load when the primary electrical power is interrupted. Cellwatch Frontier is designed to integrate with existing network management systems (OAM&P) and building/site management systems to easily centralize monitoring of battery health and integrate battery monitoring into existing maintenance procedures. This ensures maximum efficiency and effectiveness for the system administrator, while reducing cost and effort for maintenance and support teams.

#### **Increase uptime during power outages**

Network operators can decrease the risk of outages by eliminating the risk of battery failure. By ensuring remote batteries will work when needed, operators can improve their response to unplanned outages due to weather or power grid failures.

#### **Reduce site visits and maintenance costs**

With the Cellwatch Frontier system, there is no longer a need to go on-site to conduct tests or to measure the battery. There is significant cost savings by eliminating a large number of service visits to perform maintenance operations. Your field support team will know when and where to go so they can be much more efficient and effective.

#### **Lower battery replacement costs**

Extend the life of your battery and eliminate indiscriminate replacement practices by knowing when a battery needs to be replaced with daily monitoring.

#### **Increase reliability of battery backup system**

Cellwatch Frontier integrates into existing network and site management systems and condition-based maintenance can be supported within existing operations procedures. This enables centralized monitoring of the entire network of remote cell sites.

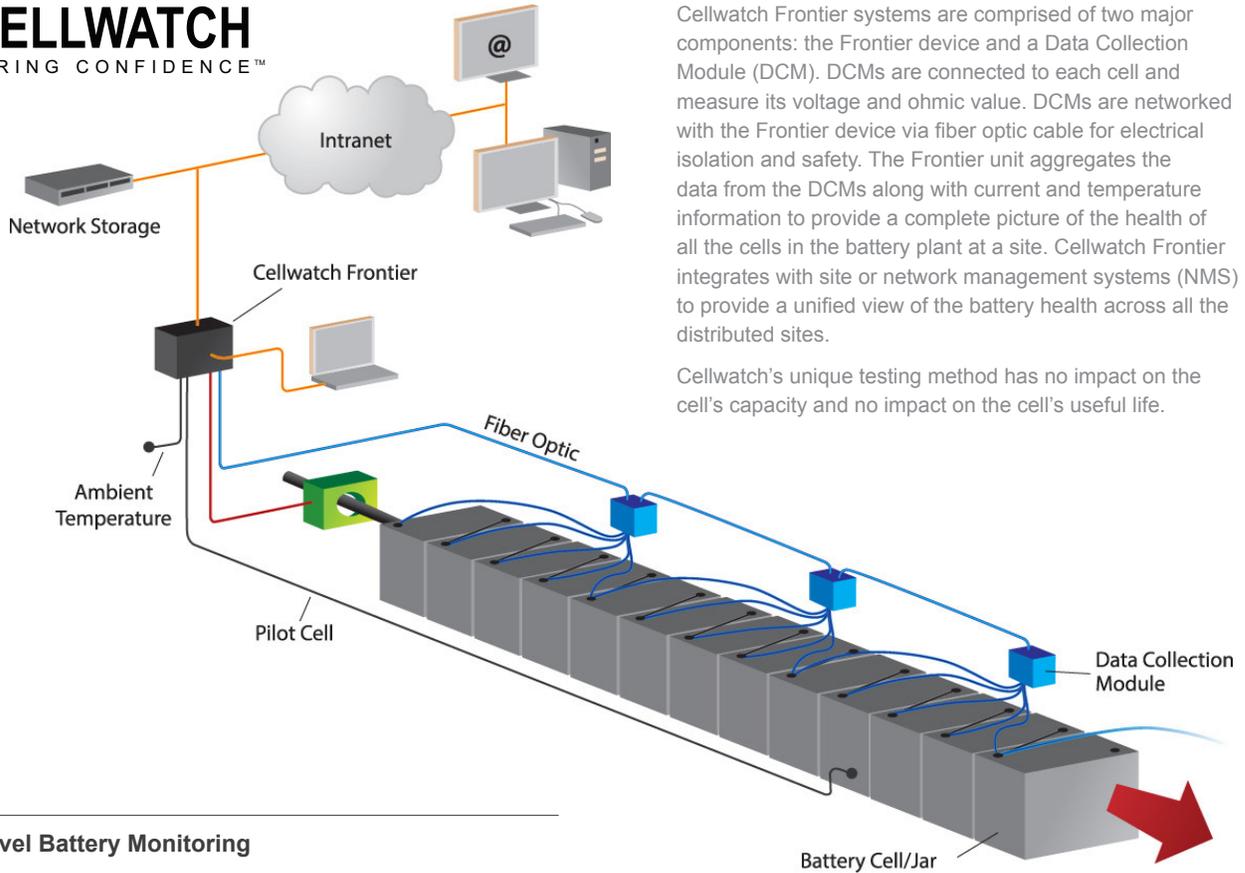
#### **Improve workplace safety**

Automated battery monitoring decreases the need for personnel to come in contact with and handle batteries. The monitoring technology is optically isolated thus reducing exposure to high battery voltages.

#### **Slash fuel and vehicle expenses**

A huge amount of battery maintenance time is simply traveling to and from sites. Utilizing Cellwatch Frontier reduces truck rolls, decreasing fuel consumption and reducing a provider's footprint.

**The Cellwatch battery monitoring technology is used today by telecommunications companies, major banks, military installations, hospitals, and universities throughout the world where mission critical power protection is essential. It is field proven in over 2,000 locations around the world. Built for large scale, a single Cellwatch installation is monitoring over 16,000 batteries.**



Cellwatch Frontier systems are comprised of two major components: the Frontier device and a Data Collection Module (DCM). DCMs are connected to each cell and measure its voltage and ohmic value. DCMs are networked with the Frontier device via fiber optic cable for electrical isolation and safety. The Frontier unit aggregates the data from the DCMs along with current and temperature information to provide a complete picture of the health of all the cells in the battery plant at a site. Cellwatch Frontier integrates with site or network management systems (NMS) to provide a unified view of the battery health across all the distributed sites.

Cellwatch's unique testing method has no impact on the cell's capacity and no impact on the cell's useful life.

### Cell Level Battery Monitoring

Cellwatch Frontier measures voltage and ohmic value for each jar or cell as well as temperature and DC current to provide a complete picture of battery health.

### Cell Level Alarms

Frontier triggers alarms when any value is beyond its acceptable range, indicating an issue with a battery or cell. Alarm conditions are indicated on device LEDs, site web pages and centralized network management systems.

### Flexible and Scalable

With its modular architecture, Cellwatch Frontier is designed for easy installation supporting essentially any combination of 1.2 to 16 volt cells configured for short or long duration discharge. Installers can customize the setup to reflect the variation from site to site, accommodating deployment deviations as they arise.

### Reliable and Economical

The Cellwatch Frontier components were designed to have an extremely long life and the major components of the solution have a mean time between failures (MTBF) of almost 30 years. The Cellwatch Frontier system is highly reliable and provides an extremely high return on investment.

### Specifications

**Power Source** Charger, Battery, AC or DC supply.

**Compact Metal Enclosure** 9.75"W x 2.5"H x 5.0"D.

**Monitors** VLA, VRLA, or Ni-Cad cells 20-70 volts DC.

70-150 volts DC. 100-240 volts AC. **Connections** 4x

Temperature Probes. 2x CTs for wall mount model. 4x CTs

for rack mount model. 4x Digital Inputs. 5x Hardware Relays

for wired alarms. **Ethernet** wall mount – 1 port rack mount

– 2 ports Serial – RS485. **Interfaces** DNP3, SNMP, Modbus

for SCADA integration. USB port for on-site administration.

Web pages for remote management.

## Contact Us

[WWW.CELLWATCH.COM](http://WWW.CELLWATCH.COM)

### UNITED STATES & ASIA PACIFIC

NDSL Inc.  
4112 Blue Ridge Road  
Suite 210  
Raleigh, NC 27612

P: 1-919-790-7877  
F: 1-775-535-0139

### UNITED KINGDOM

NDSL Ltd  
Gloucester House  
399 Silbury Boulevard  
Milton Keynes  
MK9 2AH, England

P: +44 (0)1908 303 730  
F: +44 (0)7006 059 864

France: +33 (0)9704 688 83

### CHINA

NDSL Shanghai Co. Ltd  
Room 911, Block 13, No. 99  
Tianzhou Road,  
Xuhui District Shanghai,  
200233, China

P: +86 21-61138828  
F: +86 21-61138838