



Using ICT's Modular Power Series DC Power System & Intelligent DC Distribution Panel at Nola Broadband's Communications Sites

Company

NOLA Broadband
New Orleans, United States

Business Need

Finding a reliable solution to monitor and manage remote DC-powered equipment, including status/alarm reporting, and power cycling locked up devices, without having to visit the site.

Solution

ICT DC power systems and power distribution panels with Ethernet capability provided remote power monitoring and the ability to shut down or power cycle any DC-powered device at the site. Operating costs were reduced while Quality of Service improved.

Business Benefits

- ▶ Reduced operating costs
- ▶ Full monitoring and control of power conditions of their connected devices
- ▶ Eliminated previous power issues

NOLA Broadband Selects ICT to Provide Dedicated DC Power Plant Solutions for Fiber Broadband Sites

ICT solutions provide dedicated DC power with redundancy, power monitoring and control, to power central office and fiber sites, adding extra resiliency to NOLA Broadband's fiber network

Business Challenge

Broadband - also known as high-speed internet - is fast becoming an essential service. Many companies have shifted to a work-from-home or hybrid work model; many consumers have added to or have replaced traditional ways of viewing television, moving to streaming services; and remote education and healthcare has become more prevalent in recent years. All these applications are data intensive and require a highspeed internet connection to function.

Simply put: Internet users expect fast, reliable connections.

No matter how well networks are designed, all have the potential to experience issues, some which may result in the loss of an internet connection for customers. Environmental conditions can cause disruptions in power which is needed to run the network, or poor or inconsistent power can have an impact. On occasion, network devices used within fiber and wireless broadband networks can become unresponsive or "lock up", which can cause network disruptions. These issues – and there can be others – can impact network performance and quality of service for customers.

To best mitigate against this, NOLA Broadband decided to upgrade the power infrastructure used to power their network devices. Previously, NOLA Broadband used AC uninterruptible power supplies (AC UPS), which provide short-term backup power when AC power from the electric utility is lost. These are often used in office environments to provide backup power to desktop computers if AC power fails. While there are industrial-grade versions, they do not provide the level of backup time, redundancy, alarm reporting, monitoring, and backup capacity of a dedicated DC power plant solution.

“We used to have frequent AC UPS failures; we don't have any power issues anymore, ever!”

- Aaron Rodriguez, Owner, NOLA Broadband

Business Solution

NOLA Broadband decided to install ICT's Modular Power Series DC power system combined with ICT's intelligent DC distribution panel at their communications sites.

ICT's DC power systems convert the AC power from the electrical utility into DC power used to power the network devices, including core switches, core routers, and GPON at multiple fiber central office locations. The power systems have a flexible, modular design, where additional hot-swappable DC power modules can be added to provide more power, or to provide redundancy should this be needed, thereby, providing a fail-safe power system.

With fully integrated battery management features, battery banks of various capacities can be added to the site to provide long-term backup to the site if AC power is lost. When AC power is restored, the ICT products will recharge the batteries to keep them in optimal condition, ready in case AC power fails again.

The power system also has built-in DC power distribution so multiple load devices can be connected, each with their own breaker-protected circuit. In addition, NOLA Broadband used ICT's front-access, intelligent DC distribution panel to distribute the DC power to multiple network devices.

Ethernet TCP/IP connectivity to the ICT DC power system and DC distribution panels allowed NOLA Broadband to monitor various power conditions, including AC input voltage, battery voltage, battery runtime remaining, battery state of charge, and individual load currents for each connected network device. In addition to monitoring, power can be controlled, shutting down or power cycling power to a specific connected network device. Locked up devices can be remotely reset without having to physically visit the site.

“If any network gear is locked up, I can power cycle it real quick and bring it back online.”

- Aaron Rodriguez, Owner, NOLA Broadband

Business Outcome / Benefits

For NOLA Broadband, the benefits to this approach are:

- ▶ Full monitoring and control with email alarm reporting provides peace of mind, ensuring that the network power is always available
- ▶ Alarm notifications allow for quick intervention to resolve issues and keep network power and network devices online
- ▶ ICT's Modular Power Series is flexible and modular, allowing NOLA Broadband to select the best configuration depending on the site's power needs
- ▶ Reduced operating costs by reducing the number of physical site visits required to resolve an issue, resulting in a quicker resolution of the issue, and increased network uptime

“Any questions I have had, ICT has always been quick to respond, and they are very thorough in helping me pick the best solution for my needs.”

- Aaron Rodriguez, Owner, NOLA Broadband

About NOLA Broadband

NOLA Broadband is an internet service provider (ISP), providing broadband services to the city of New Orleans and surrounding areas. The technologies used are primarily fiber, where data is transmitted via a fiber optic cable; and fixed wireless, where data is transmitted wirelessly through the air via a transmitter/receiver installed on a business or residence, which communicates to a nearby communications tower. As with most ISPs, NOLA Broadband's customers rely on their service for reliable, consistent internet connectivity.

For more information please visit: www.nolabroadband.com

About ICT

ICT is a leading manufacturer of power conversion products for land mobile radio, fixed wireless broadband and industrial power markets. Our power solutions help improve uptime, reliability and quality of service, reduce operating costs, and provide remote power monitoring and management of connected loads over Ethernet, often reducing unnecessary visits to remote sites.

For more information please visit: www.ict-power.com