

Digi Cellular Routers Improve Environmental Monitoring Systems

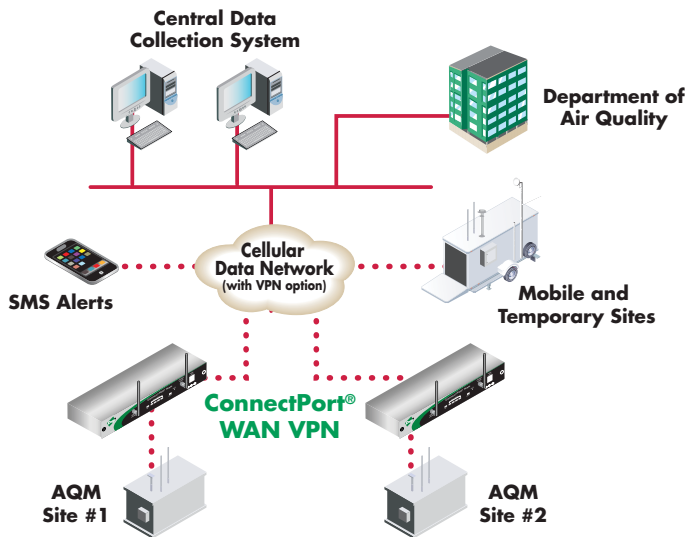
Photo Courtesy of DR DAS, LTD

Background

DR DAS, LTD is a leading provider of environmental and energy monitoring solutions. Its products allow state and local agencies to gather robust sets of information remotely from field monitoring stations. DR DAS, LTD solutions collect information needed for public agencies to administer measurement systems, operate facilities, produce in-house and regulatory reports and publish information for public consumption.

For example, public agencies are required to deploy environmental monitoring equipment to monitor and protect air quality. It can be difficult to manage these devices because environmental monitoring equipment is frequently located across wide areas with stations sometimes hundreds of miles apart. Until recently, agencies typically had to dispatch personnel to these remote sites to investigate potential issues, primarily because the communications link to the stations supported limited bandwidth. With remote control of the station equipment made practical with increased bandwidth, thousands of man hours and many gallons of fuel can be saved by eliminating much of the travel to perform maintenance and calibration checks.

For primary connectivity to remote devices DR DAS, LTD turned to Digi International for its ConnectPort® WAN VPN, a high-speed, 3G cellular router. Public agencies may now connect to their remote environmental monitoring equipment using a high-speed wireless broadband connection, gaining access to a previously unused, rich set of metadata about the instrumentation and enabling remote equipment control.



“Our customers can now reliably and affordably access a rich data set of information about their monitoring activities...”

- Andrew Montz, owner of DR DAS, LTD

Application Summary

Application:

Remote air monitoring

Industry:

Environmental and energy monitoring

Company:

DR DAS, LTD – www.dr-das.com

Challenge:

DR DAS, LTD wanted to replace outdated communication links to remote air quality monitoring stations in order to gain access to previously unused instrumentation metadata and to control equipment remotely.

Solution:

ConnectPort WAN VPN cellular routers enable high bandwidth remote monitoring and data collection, eliminating many costly on-site visits.



Digi Enables Broadband Wherever and Whenever

“The key to improving management of air monitoring networks is reliable, affordable broadband access,” said Andrew Montz, owner of DR DAS, LTD. “While broadband can be implemented in a variety of ways, cellular offers the broadest coverage available at a reasonable cost. Many environmental monitoring sites are located where competitive technology like DSL is not available. Getting copper wire to some of the monitoring locations incurs significant installation costs including possibly installing new poles to carry the phone line needed for either POTS or DSL communications.”

Because it can go anywhere and supports all major cellular carriers, the ConnectPort WAN VPN with high speed 3G networking is a very effective single solution to the many physical barriers involved in monitoring station communications. It offers an ideal solution for mobile and emergency response monitoring tasks.

Because high-speed cellular connectivity can transfer large amounts of data in real-time, our customers can now reliably and affordably access a rich data set of information about their monitoring activities,” Montz added. “This allows customers to understand what an instrument might be doing in order to constantly evaluate if the measurement values are believable.”

Digi Streamlines Equipment Maintenance, Saves Taxpayer Dollars, “Greens” Process

In addition to allowing public agencies greater access to the data that determines whether their information is correct, the ConnectPort WAN VPN enables customers to become more efficient.

“Receiving remote diagnostics information in real time is a huge time saver,” Montz said. “Agencies can now look at the data and understand what the issue might be based on the remote information. They can bring the right parts during a site visit because they know what the problem is. There is no traveling back and forth like in the past. This is saving public agencies money and is also a greener solution.”

The systems also save money by reducing the need for regular site visits for maintenance. Agencies save on man hour costs as well as hard costs such as fuel and wear and tear on public vehicles. In many cases, an existing POTS line to the station is eliminated. This essentially offsets the monthly cellular service provider charges offered by major carriers to public agencies.

In addition to providing strong ROI, the cellular routers are proving to be more reliable than the wired connections that previously connected some systems.

“Our customers can now reliably and affordably access a rich data set of information about their monitoring activities.” Montz said.

Montz concluded: “I found the ConnectPort WAN VPN to be a reliable rugged device. It is a single box solution for all of the things my customers need. We use them because they solve all of the problems and work.”



Photo Courtesy of DR DAS, LTD



More about ConnectPort WAN VPN

The ConnectPort WAN VPN is an enterprise-class 3G high speed flexible-function cellular router that provides secure wireless connectivity to remote sites and devices. It can be used for primary wireless broadband network connectivity to equipment at remote locations, as well as for a backup to existing landline communications. Integrated IPsec VPN support ensures true end-to-end data protection.

Key Features:

- High-speed 3G primary or backup network connectivity
- Integrated VPN support
- Ethernet, serial and USB ports
- Wi-Fi and GPS options
- Easily replaceable cellular modules or PCM/CIA Cards

For more information on Digi products please visit www.digi.com

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