Application Note

Use Radius® BZ1 and RGX™ Gateway to Monitor Gas Threats Remotely

Do you have the need for continuous gas monitoring in an area with a known leak? Are you tired of setting up a complex gas monitoring system just to monitor an at-risk area for a short period of time? Regardless of your location and the area being monitored, would you like to be notified in real time that there is a gas exposure? Using the Radius® BZ1 Area Monitor, RGX™ Gateway, and iNet® Now cloud-based software, you can set up and deploy live area monitoring in three easy steps. Within minutes, you can have visibility into live readings and alarms from anywhere in the world.

Setting Up Radius BZ1 Area Monitors

The first step in setting up live area monitoring is to determine the sensor combination you will need based on which gases may be present. Consider which toxic gases, combustible gases, or volatile organic compounds (VOC's) could be lurking in your area. Once the sensor configuration has been established, the next step is determining the physical location of the monitors. Monitors may be arranged differently based on the application (space, area, or perimeter), the gas hazards, and environmental conditions. After the Radius BZ1 monitors are placed on site, the next step is to power them on. By design, the Radius BZ1 will automatically communicate wirelessly with other Radius BZ1 monitors, which creates a peer group. This technology, known as LENS™ Wireless, shares peer alarms and real-time gas readings across the group of networked area monitors. If one Radius goes into alarm, the other Radius monitors will acknowledge that the peer is in alarm by flashing alternating red and blue lights. Once a LENS network is established, the area of concern is being monitored and the first step in setting up the live monitoring system is complete.

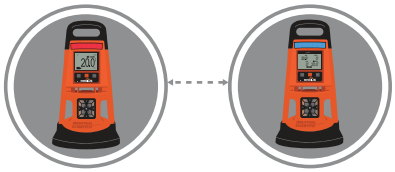

Figure 1: LENS Wireless enables BZ1 Area Monitors to wirelessly share peer readings. The BZ1 on the left is in alarm and the BZ1 on the right is showing the readings.

Getting Data to the Cloud

The second step is to complete the path that takes the gas readings and alarms from the Radius BZ1's to the cloud. To accomplish this step, the RGX Gateway must be placed within 300 meters of the area monitors. Using the same LENS Wireless technology, the RGX Gateway, when turned on, will automatically connect to the group of area monitors. The RGX Gateway takes the readings from the area monitors and sends them to the cloud using either cellular, wi-fi, or a hard-wired Ethernet connection. As soon as the connection is automatically initiated between the RGX Gateway and the area monitors, the real-time readings and gas alerts from the hazardous location are flowing to the cloud.

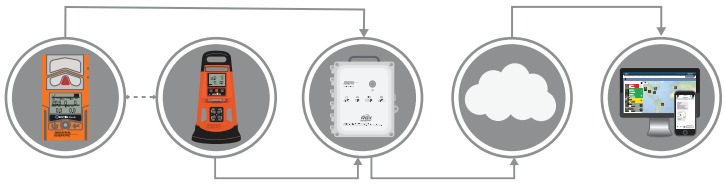

Figure 2: By adding an RGX Gateway to the LENS group, readings and real time alerts can be sent to the cloud.

INDUSTRIAL SCIENTIFIC

Real-Time Remote Monitoring

The last step in the process is to log in to iNet Now. Once logged in, all real-time readings and gas alerts will be displayed on the dashboard. In addition to the live data, the area monitors and the RGX Gateway will display their Global Positioning System (GPS) coordinates, so the exact location of the equipment, gas readings, and alarms can be viewed on a map on the dashboard. In conjunction with real-time monitoring, iNet Now allows users to create alert subscriptions and set up routing notifications. The alert subscription consists of adding email addresses and phone numbers of the people who should be notified when an alarm event occurs. GPS coordinates are provided in the email and text alerts, so anyone who is set up to receive real-time alerts can pinpoint the alarm location immediately without logging in to the software.

To learn more about real-time area monitoring, visit www.indsci.com/rgx.

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