

Application Note

Reliable Communication Attained for Irrigation District

At Elevate Wireless, reliability is one of the key factors we strive for in our products, services and support. This was also what system integrator Ryan Stiefes, President of Innovative Controls in California's Central Valley, was looking for in an IP radio supplier when we first got in touch with him in late 2016.

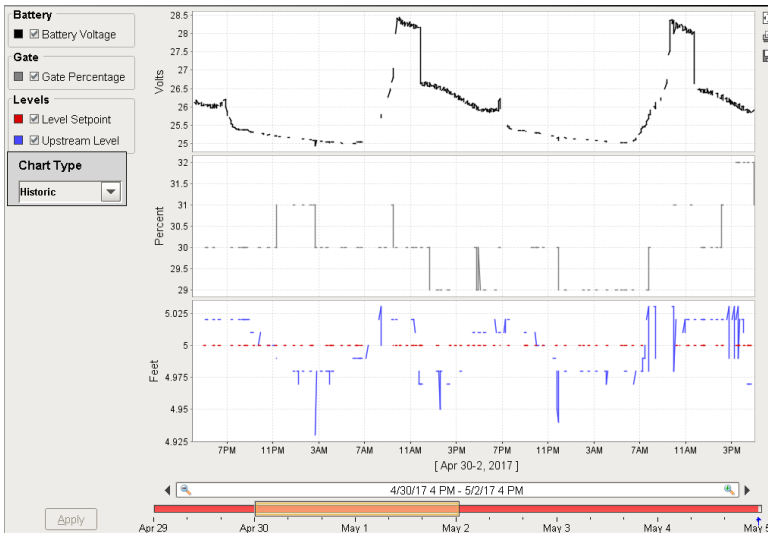
Innovative Controls had initially installed a competitor's brand of Ethernet radios for an irrigation district in a rural community of central California. The project required a necessary link from the Master at the main irrigation office to the Repeater, about 9 miles away. The radio path was partially obstructed, covering mature orchards and farmland over most the terrain.

Figure 1 shows the original results using the competitor's radios. As shown, the link was experiencing frequent data dropouts and packet loss. In addition, Innovative Controls could not get the necessary technical support from the radio dealer and manufacturer in order to address the issue and pinpoint the problem with the equipment.



Image 1: Master station

Figure 1: SCADA results with competitor's radio



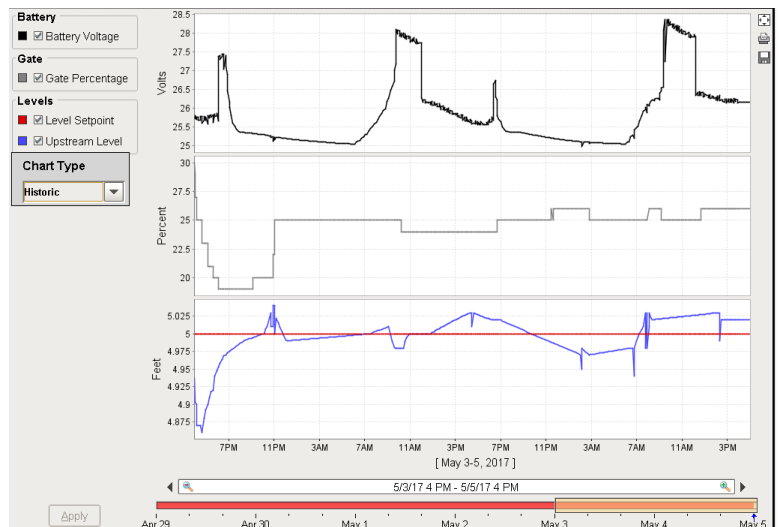
Working with Innovative Controls, we recommended XetaWave's Xeta9-EL software defined radio. This license-free, 902-928 MHz unit allows for industry-leading data rates and a wide variety of radio parameter tuning, in order to accommodate various link conditions. Innovative Controls initially tested the units with positive results. Our technical support team conducted a software evaluation of the sites and made recommendations to optimize the settings. Our technicians then went onsite with Innovative Controls, to directly confirm reliable communication and installation.

Figure 2 shows the results using XetaWave's Xeta9-EL. The link has been consistently reliable since installation and the system integrator can rest assured that he has a reliable partner to contact for future projects and support.



Image 2: Repeater site

Figure 2: SCADA results using XetaWave's Xeta9-EL Ethernet radio



For additional information on how we can help you with your communications challenges, please call us at 408-642-5458 or email info@elevatewireless.com.