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## **“Extreme Endeavors uses Avalan Radios to Communicate with the Water and Power Distribution Sensors and Controllers.”**

West Virginia is known for its beautiful rolling hills, thick vegetation and isolation from such amenities as high speed internet and or cell phone coverage some regions. Extreme Endeavors has been using Avalan products to perform critical infrastructure monitor and control in this region. One of the projects is with Central Barbour Public Service District (Central Barbour PSD), a large network of five water tanks and five pump stations. Central Barbour PSD stretches from the town of Philippi up to Backbone mountain.

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*Mike Masterman  
President of Extreme Endeavors.*

Extreme Endeavors uses the Avalan Radios to fabricate the NExt and ExtRa product line which is then used to communicate with the sensors and controllers. This system utilizes the high speed network connectivity to sense water tank levels, grid power conditions, pump motor current levels and a variety of other parameters. Not only does the system bounce around the mountains sensing parameters, it also controls the pumping system which distributes water throughout the mountainous region.



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This system has proven beneficial to other facets as well, recently an IPAC system manufactured by Extreme Endeavors detected an over voltage condition on the power grid. The power company was notified and replaced the faulty transformer before any critical effects occurred. Critical infrastructure monitoring between Avalan and Extreme Endeavors will continue, leak detection algorithms and real time chemical analyses of drinking water are just a start. The analytics of power grid monitoring is also rapidly expanding for these two companies. Using the intelligent priority based power control of the IPAC modules and the connectivity support by Avalan, Extreme Endeavors is looking at power control of remote locations, creating of microgrid within a building and others.