



CASE STUDY



Rio Blanco County Aims for Ubiquitous Broadband with Castle Rock Microwave

Rio Blanco County, a 3200 square mile slice of northwest Colorado, is home to about 6000 residents. Although rural in nature, the County has big plans for a broadband network that will reach everyone who lives there. With help from Castle Rock Microwave, Rio Blanco County is well on the way to achieving its goal.



Beginnings of Broadband

Five years ago, the County began building its own broadband network, installing fiber within the towns of Meeker and Rangely, both located within Rio Blanco County. The County expanded into microwave transport by further developing the eight existing primary towers by adding 11 GHz Cambium radios to the towers in 2017. The 90 to 130-foot towers are distributed throughout the County with link distances of up to 30 miles and carry digital trunk radio (DTR) for public safety as well as cellular broadband and VHF. (These towers also host cellular and FirstNet equipment.) While Rio Blanco County is the broadband operator, it leases access to its network to two service providers, Visionary Broadband and Cimarron Telecommunications, who provide services to end users.

After running its primary network for a year and verifying its reliable performance, the County decided to do a secondary buildout of the wireless network to reach underserved outlying areas. After a competitive bidding process and thorough evaluation, the County chose Castle Rock Microwave for this extensive buildout.

"After thoroughly evaluating the bids received, the County chose to award the contract to Castle Rock Microwave for the installation of the Cambium equipment on the secondary network towers," says Cody Crooks, Director of Communications for Rio Blanco County. He further stated, "We have worked with Castle Rock Microwave in the past and really appreciate their honesty and professionalism. Castle Rock Microwave has gone above and beyond for the citizens of Rio Blanco County and we applaud their excellent customer service."



A Team Effort

"It took a team effort with multiple vendors to complete the secondary tower network project," says Crooks. Bids were accepted for a skid contractor, a solar energy contractor, a tower contractor, and a contractor to install all of the electronics and align the radios to complete the project." The secondary network uses 5 GHz Cambium radios.



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"The experience was fantastic," says Crooks. "Castle Rock Microwave's expertise, advice and professionalism were outstanding. At one point, we were behind schedule by a week and a half. With Castle Rock's involvement in the project, we ended up completing the initial project, finishing 10 sites six weeks early and came in under budget. The County was able to apply the cost savings to the construction and completion of an eleventh tower site which was completed in less than three weeks."

The secondary network brings broadband access to 68 percent of county residents with a 92 percent take rate for services from the two service providers. "Our hope is to eventually reach a broadband coverage area of 95 percent for the residents of Rio Blanco County. The County will continue to look for opportunities to expand the network going forward," says Crooks.

Microwave, which is also the vendor for our end-user microwave equipment."

Since 2017, Rio Blanco County has moved quickly to bring broadband service to its residents by distributing wireless services throughout the County as the County heads towards truly ubiquitous broadband access.



Lofty Goals

"Our project is state-of-the-art," Crooks notes. "We're the first rural county in the country to do this, and we're excited to keep moving forward – we'd like to be the first rural county in the United States to reach all of our constituents with broadband."

"Ultimately, this network could never have been built without skilled contractors such as Castle Rock



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