

How a Kansas ISP Swiftly Leveraged CBRS to Connect a Rural Community

■ About the Customer

Velocity is an internet service provider based in El Dorado, Kansas. It is part of the Butler Electric Cooperative, which was created back in 1938 when local electricity suppliers refused to provide service to rural residents. Velocity's mission is to bridge the digital divide experienced by rural America by creating cost-efficient and reliable ways to provide high-speed internet service to Butler Coop's members and surrounding communities.

■ Problem: Keeping Communities Connected

At the onset of the COVID-19 pandemic, many communities — rural and metro alike — experienced huge spikes in demand for reliable broadband access to the internet. Seemingly overnight, things such as distance learning, telehealth, telework, emergency services, connecting with friends and family or purchasing goods when stores have been closed were in extremely high demand. Rural communities that were already grappling with lagging internet speeds began this digital race at a disadvantage. With surging demand for connectivity, many rural providers couldn't meet their constituents' needs fast enough.

One of the communities that Velocity serves is Greenwood County, Kansas. The hilly terrain and low-density population of Greenwood County presented several obstacles to obtaining good quality connectivity, such as distance coverage and various difficulties due to terrain blockage. The obvious course of action was to find a better technology that could meet these challenges.

“The BLiNQ support team was easy to work with and was always willing to help...the perfect partner at the perfect time.”

— Kirk Day
Operations Manager
at Velocity

■ Solution: Tapping Into CBRS to Meet Demands

Velocity took advantage of the Citizens Broadband Radio Service (CBRS) and utilized BLiNQ Networks' CBRS radios and CommScope's Spectrum Access System (SAS) to rapidly provide high-speed internet access in the Greenwood County region. Prior to utilizing CBRS, Velocity was primarily using the 5 GHz unlicensed band for fixed wireless access.





Velocity evaluated the new CBRS band and felt that it was an appropriate solution given CBRS's current LTE (and future 5G) capabilities and could offer good quality of service to customers across a greater distance. The spectrum sharing scheme offered by CBRS meant ample bandwidth was readily available with minimum cost. General Authorized Access (GAA), which is the widely available lightly licensed part of the CBRS band, would easily support the coverage area.

Velocity worked with their long-time integrator partner PCS Technologies to select, evaluate and build the most appropriate solution. PCS Technologies recommended BLiNQ as an obvious choice for CBRS-ready hardware. Aside from the superior non-line-of-sight (NLOS) capabilities that BLiNQ offers, the solution was highly scalable, and the price point was ideal for Velocity. Velocity opted to use several BLiNQ FW-300i base stations and CPEs (Customer Premises Equipment) to create the foundations of their LTE network.

"The BLiNQ support team was easy to work with and was always willing to help. For the CERG project, they were the perfect partner at the perfect time." — *Kirk Day, Operations Manager at Velocity*

PCS was instrumental in the successful installation of the network because of their deep understanding of Velocity's pre-existing network. The BLiNQ equipment required the SAS service in order to operate in the CBRS band. Velocity closely coordinated with CommScope's SAS team who provided guidance on CBRS rules and spectrum availability analysis for the targeted deployment areas.

The fixed wireless access solution using BLiNQ hardware and CommScope SAS has proven to be a successful deployment thus far, and the outlook is positive for improving connectivity in rural America.

KEY VALUES DELIVERED

- Backed by a strong team, Velocity launched a fixed wireless network in under three months.
- By the end of 2021, Velocity estimates that they may double the size of their BLiNQ network since the initial deployment.
- The customer's operations manager indicates that they will continue to integrate CBRS into its network moving forward.
- Velocity can achieve speeds up to 100/10 Mbps for business and residential with BLiNQ.



The OnGo Alliance believes that 4G and 5G solutions, utilizing shared spectrum, can enable both in-building and outdoor coverage and capacity expansion at massive scale. In order to maximize the full potential of shared spectrum, the OnGo Alliance aims to enable a robust ecosystem towards making OnGo solutions available. The mission of the OnGo Alliance is to evangelize 4G and 5G OnGo technology, use cases and business opportunities while simultaneously driving technology developments necessary to fulfill the mission, including multi-operator capabilities. The Alliance also established an effective product certification program for OnGo equipment in the U.S. 3.5 GHz band ensuring multi-vendor interoperability. For more information, please visit www.ongoalliance.org

OnGo Alliance on:

