



# The Answer to the Rural Wireless Problem

A cost and performance comparison  
of fixed wireless access technology in rural America





# Intro

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24 million Americans  
don't have access to  
high speed internet

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The world is up and arms about 5G technology , and there is a fierce battle to see who can reach the top first.

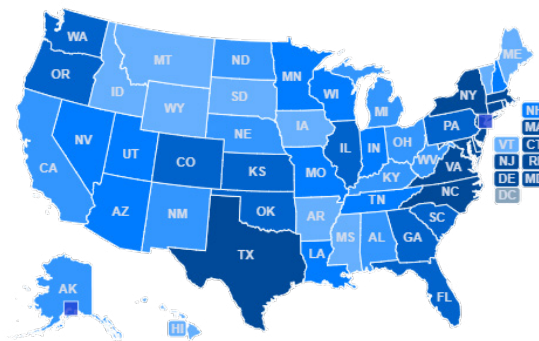
Service providers continue to release technology that is, supposedly, ready to handle the strain of this new network opportunity. With the claims of 5G's incredible speed and capacity taking up media air, there's another side to the story of American connectivity.

In 2017, 39% of rural America was downloading at speeds that hit 0.61Mbps, which makes navigating even basic websites almost impossible. With the amount of funding that's going into reaching 5G, it seems a small task to ensure all of America have access to FCC's broadband definition of 25 Mbps download and 2 Mbps upload speed.

But that's not the priority.

The reason tier 1 service providers haven't broken ground on fiber networks in rural America is a matter of cost. Digging cable to a municipality that's miles off the interstate, with a population of 5000, just doesn't make economic sense.

- Highest state average speed score: 52 Mbps
- Lowest state average speed score: 20.3 Mbps



# Enter America's wireless Internet entrepreneurs.

Local ISPs are becoming community leaders, helping their towns to keep up with the times. But profit is even more important for these start-ups. If the technology to provide connectivity is too expensive, these smaller enterprises run into the same problem. If the network doesn't provide real capacity and speed, households won't subscribe.

A delicate balance has to be reached in order to make rural internet profitable.

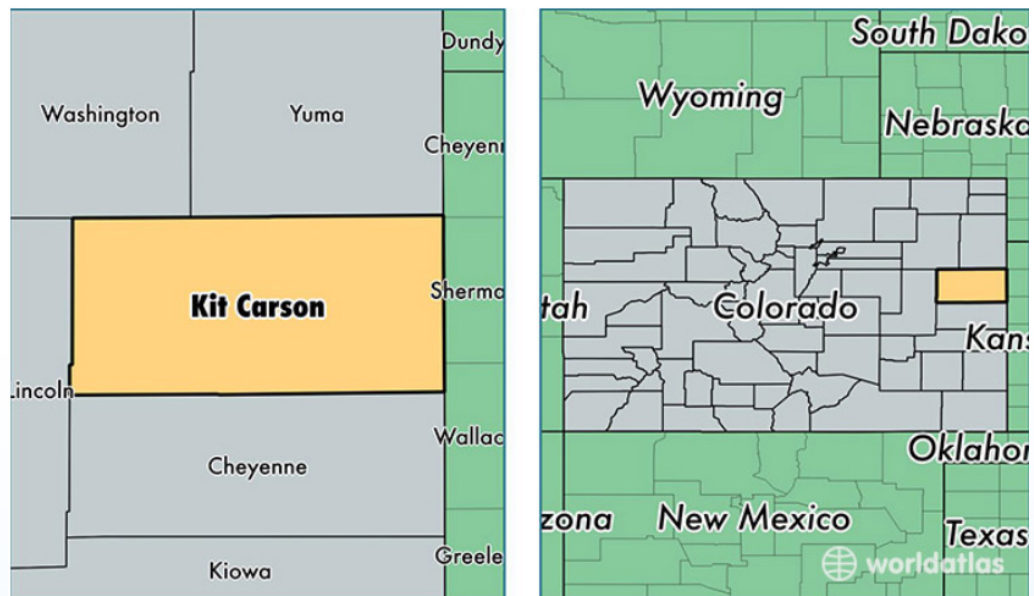




# ■ Case Study: **Kit Carson County, Colorado**

This paper explores a scenario of real American town that suffers from slow, unreliable connectivity, and the solutions it needs to stay current. Rural American towns that don't have reliable internet face stagnation and a decrease in population.

The case study investigates BLiNQ's FW-300i as a creative solution that benefits WISPs.

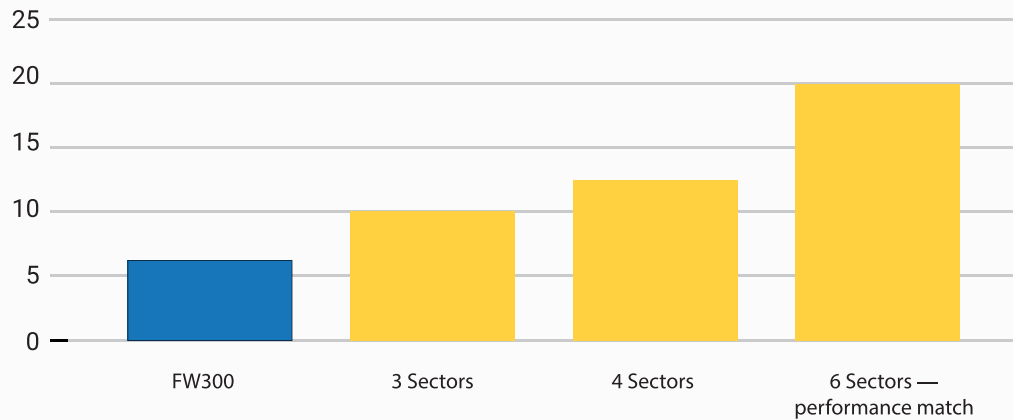
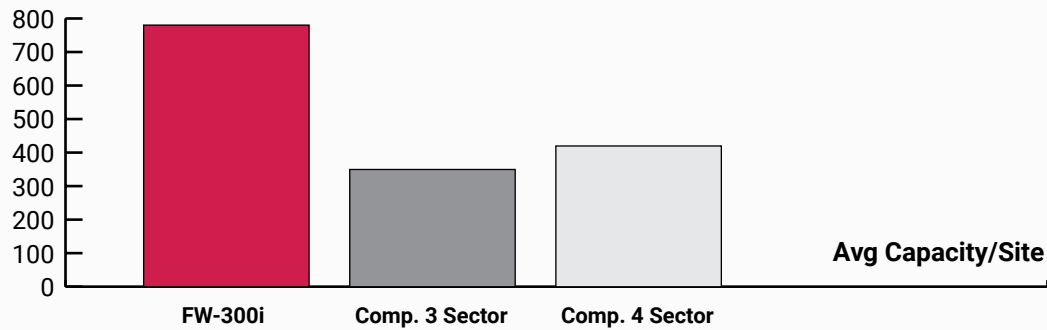


Kit Carson County is 2200 square miles of land on the East side of Colorado with approximately 3000 households. The average cost per Mbps is \$1.97 compared to \$0.40 in Los Angeles

Covering this amount of space, and being able to do it profitably is essential for increasing the quality of life of the county and keeping your business alive.

**In comes BLiNQ's FW-300i.**





The FW-300i has an average capacity of 777Mbps / site. For the competitors 2CC +1CC 4 sector, it only hits 458 Mbps. For the 3CC 3 sector, it's barely hitting 300 Mbps.

These two inferior alternatives cost about \$13.2 million, and \$10 million. While the FW-300i is roughly \$6.6 million. So, half the price, almost double the capacity.

In order to offer the same performance, the competitor needs 6 sectors, with totals adding to \$20 million. So, \$20 million, plus antennas, or \$6.6 million, all in?

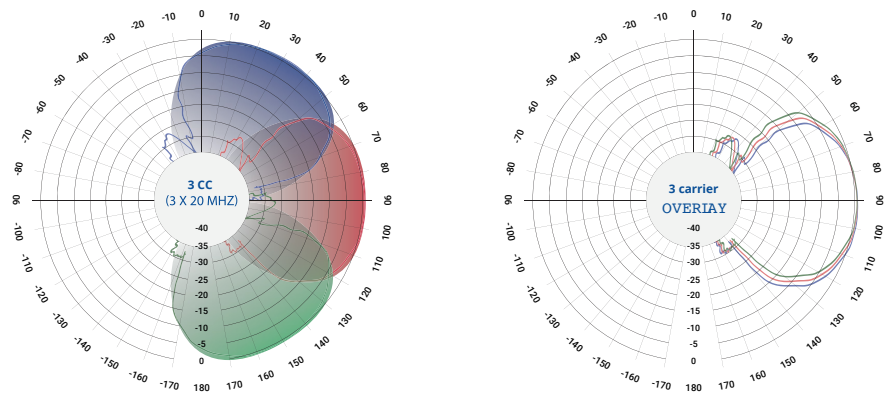
There's finally a way for ISPs to make a profit.

# About the FW-300i

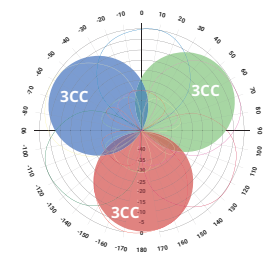
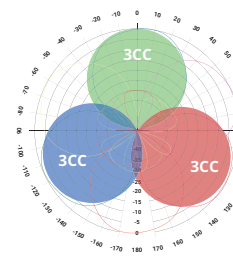
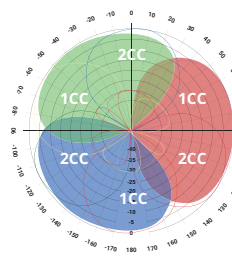
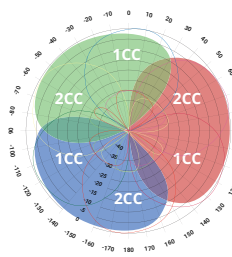


The FW-300i is a fully integrated network in a box. It covers 180 degrees from a central point, and can be controlled via software to optimize capacity where it's needed.

The high antenna gain on the receiver allows the FW-300i to double connectivity range. This, in addition to the amazing uplink capabilities, gives the unit the best coverage and performance in its class. Because of the fully integrated nature of the device, it's guaranteed to lower CAPX and OPX.

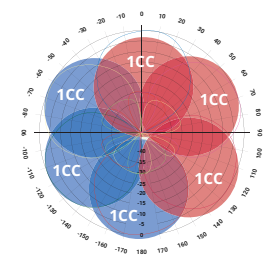
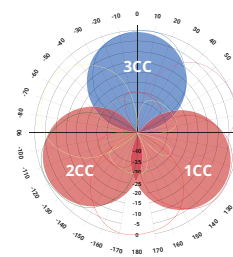
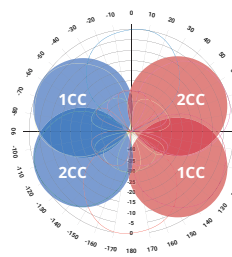
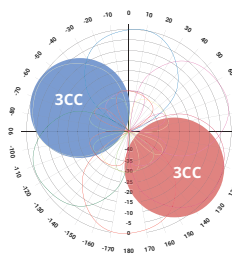


**3 FW300i**



Practically FW300i can take any shape by a 60° step by just SW commands that can be configured based on customer locations and configured by SW as customer reach changes.

**2 FW300i**



## ■ Who's it for

The FW-300i is for anyone looking to take connectivity further. It's perfect for WISPs and small ISPs who want to reach new markets. The amazing merger of coverage, capacity, and cost, put the FW-300i at the top of its class.



Because of the low amount of spectrum, the 300i can be used at scale. It's an affordable, all-in-one solution that's offering new life to rural and underserved populations.



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