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OnGo CBRS Commercial Service Launch Event Takeaways

September 18, 2019 by Spencer Kurn

We attended the OnGo CBRS Commercial Service Launch event today, where we met with wireless carriers, Cable companies, tower companies, and other industry experts. We gained a ton of data points into how the spectrum will be deployed between different carriers and Cable companies. Overall, the insights from the event support our view that Cable companies stand to benefit the most from CBRS.

Three types of deployment

From what we heard today, there are three general ways that CBRS will be used: 1) Fixed wireless broadband deployments in rural markets; 2) Wireless capacity deployments in dense urban markets; 3) Private LTE deployments in enterprises (malls, transportation centers, hospitals; etc.). We expect the capacity deployments over small cells to have the biggest impact for sector, with Cable companies and spectrum-constrained carriers benefitting the most.

AT&T and Verizon are taking different approaches

AT&T plans to deploy CBRS spectrum for FWB in rural markets. They will use a traditional RAN architecture on 1,100 macro sites (2% of total). In contrast, Verizon plans to use CBRS solely for additional wireless capacity in dense markets, primarily outdoor. Their ultimate goal is to use CBRS in conjunction with the C-Band to significantly boost capacity. The stark difference in use cases demonstrates the need that Verizon has for capacity relative to AT&T, particularly after AT&T's recent deployment of 600MHz, AWS-3, and FirstNet spectrum.

The threat of CBRS to Cable is minimal…

One of the biggest secular threats to Cable comes from carriers using spectrum to attack the broadband market. Although carriers and WISPs will use CBRS to aid their cause, we don't think it poses a major threat. We estimate that AT&T's 1,100 sites with CBRS could reach an incremental 2.4MM passings; if the rest of the Telcos (other than Verizon) use CBRS in a similar fashion, this could amount to 5.2MM total passings with much faster speeds than they currently deliver today (AT&T said they achieved 140Mbps downstream in tests). At the same time, however, Cable companies plan to use CBRS to extend their reach in rural markets (some are targeting a 40 mile extension from the edge of their plant). We estimate this could enable Cable companies to pass an incremental 6-7MM homes. Assuming similar quality of service, CBRS may there actually drive broadband share gains for Cable in rural markets. Bottom line: we don't expect CBRS to materially impact our broadband estimates for Cable, but on the margin it may serve as a net positive.

…and the CBRS opportunity for Cable is huge

Charter said that dual-SIM functionality in phones, in conjunction with technology that allows seamless switching between their SIM and Verizon's SIM, enables them to shift traffic onto their own network and away from the MVNO with Verizon. They noted that 85% of cellular traffic occurs within 15% of the area in a given market; they plan to target high usage areas first to reduce usage on Verizon's network. Our models assume that Cable can reduce MVNO costs by roughly two-thirds over the next several years (boosting EBITDA per sub by ~$10 per month, on average); if they can surgically target the full 85% of traffic, there may be upside to our estimates. We expect some Cable companies to begin deploying CBRS in late 2020; it seems they will time their deployment based on the pace that the base gets seeded with handsets that can utilize CBRS. Once they start, the CBRS rollout could take 2-3 years and will only deploy it over a subset of their Wi-Fi hotspots, since CBRS has much better propagation than Wi-Fi.

In the home, Wi-Fi may remain king

We had thought CBRS could serve similar benefits for Cable both inside and outside the home; however, we learned today that Cable companies actually prefer Wi-Fi inside the home. There is simply far more bandwidth for Cable operators to use over Wi-Fi relative to CBRS, so long as a consistent signal is maintained. Despite the benefits of Wi-Fi, we heard that Cable operators may still deploy CBRS inside homes because it may lower MVNO costs for mobile customers who turn off Wi-Fi throughout the day.

C-Band remains the prize

While CBRS will certainly help, and many expect to participate in the PAL auction in June 2020, all of the companies we spoke with believe the C-Band will afford greater capacity than CBRS, primarily due to its higher power limits and wider channel widths, which magnify the benefits of 5G. The operators wouldn't go into great detail into how they would utilize C-Band given the variety of unknowns around the magnitude and timing of getting it; however, they remain very interested. Vivek recently launched on Intelsat with a Buy (LINK) on the thesis that demand for C-Band spectrum was underappreciated, and the comments today support this view.

More mid-band spectrum on the come

Commissioner O'Reillyreiterated his plea to repurpose more mid-band spectrum, particularly the 3.45-3.55 band (currently used by the DOD) and the 3.10-3.55GHz band (currently used by radar). The timing of this spectrum being coming to market remains uncertain, but something to watch as studies into the bands progress.