AT&T sours on 5G fixed wireless broadband

Brian Santo - May 04, 2018

AT&T doesn’t have a good business case for fixed wireless broadband, according to company CFO John Stephens. It’s a remarkable assertion for a number of reasons.

A couple of years back, AT&T and Verizon irritated the entire wireless industry by demanding an acceleration in the wireless technology standards process so that they could market a service they could plausibly call 5G in 2018, rather than wait for 2020, the original target for the ratification of the first 5G standards.

The service that AT&T and Verizon were determined to rush to market is fixed wireless broadband, which is “fixed” in that neither the transmitter nor (more to the point) the receiver moves. It will be a predominantly residential service, possibly useful also for small businesses.

There is a set of technologies that are essential to 5G networks, which can also be used to improve the performance of 4G networks. Those technologies include higher order modulation (256 QAM), multiple antennas (4×4 multiple input/multiple output, or MIMO), and carrier aggregation (3- and 4-way). Those are the technologies that AT&T and Verizon were eager to have standardized in 2018. They got their wish. Now, they are using these technologies in their 4G networks to enable fixed wireless broadband.

The wireless industry has thrived because it could offer something nobody else could—mobility. Why negate the greatest differentiator wireless networks have by nailing everything down in a fixed wireless scheme? And why rush into it?

Both AT&T and Verizon see value in being first with a 5G service; never mind that it isn’t really 5G. Marketing hype has some value but, more importantly, those 5G enablers can boost 4G networks closer to parity with wireline networks in terms of bandwidth. AT&T, Verizon, and others have been touting experiments that show fixed wireless broadband works. Most companies testing fixed wireless broadband claim to have achieved transmission speeds of several hundred megabits a second.

This makes fixed wireless broadband a) a superior replacement for DSL broadband, b) adequately competitive with fiber to the home, a business AT&T and Verizon both deployed but neither ever liked, and c) adequately competitive with cable broadband. That’s in terms of bandwidth. Bandwidth is not the only factor when it comes to broadband competitiveness, however. As with any business, cost is a significant factor.

During AT&T’s recent first quarter conference call with analysts, Stephens said, “With regard to the fixed 5G wireless, if you will, our tests have shown it can be done. We can do it. The opportunity there is something that we have to prove out. We’re not as excited about the business case. It’s not as compelling yet for us as it may be for some.” See the call transcript, provided by Seeking Alpha.
The base stations for fixed wireless broadband need to be closer to customers, which requires the installation of far more base stations. Each of those base stations needs to be served with a fiber connection for backhaul, Stephens explained.

“But quite frankly, if we’ve got … fiber there, it may be just as effective and maybe even a better-quality product to give those customers fiber-to-the-home,” he said.

By the end of the year, the company will start turning on a mobile service, but Stephens reiterated what was already known—there won’t be any smartphones ready until well into next year. The first devices will be pucks (basically routers) and maybe 5G-enabled tablets.

No one from Verizon has yet made a statement as overt as Stephens’, but during the company’s Q1 conference call with analysts, Verizon executives seemed to be downplaying fixed wireless broadband.

Verizon executive vice president and CFO Matthew Ellis said, “We are quickly approaching the initial launch of our residential broadband service later this year, which will be the first use case of a broader 5G strategy. We are driving the ecosystem for future growth across the entire array of 5G services.”

Fixed mobile broadband is just one of many use cases on the overall 5G network, just one more service that will provide a return on 5G investments over time, Ellis explained. His comments were drawn from a Seeking Alpha transcript.

Verizon executives were much more excited about mobile 5G, on course for a rollout by the end of this year, at about the same time AT&T plans to introduce a 5G mobile service.

Ellis acknowledged again what is well-known, that Verizon’s first mobile 5G services will not be standards-based. They couldn’t be; the standards aren’t finished and won’t be until later in 2019. He repeatedly explained that Verizon wants to be in position to introduce standards-based 5G as soon as it’s available. The takeaway is that expectations for 5G should be dialed back for 2018, and that expectations for fixed wireless broadband in particular should be dialed back for the foreseeable future.

There’s one other thing that makes the dimmed prospects of fixed mobile broadband problematic, though it’s mostly forgotten and becoming demonstrably irrelevant. Starting in the 1990s and into the first years of the new century, AT&T and Verizon (and to a lesser extent CenturyTel) bought many other phone companies, a reconsolidation of the fractured telephony market after the breakup of the old Ma Bell-era AT&T.

As a condition to secure approvals for all those deals, the companies that are now AT&T and Verizon promised repeatedly to provide advanced broadband to underserved and unserved areas. They first intimated they were going to do it with what eventually became known as U-Verse (AT&T) and FiOS (Verizon).

People in unserved areas waited as those networks were planned, and once those networks were being built, they waited some more as Verizon and AT&T promised to extend their networks beyond areas already well-served by cable companies. The two extended their networks to few places considered underserved and unserved.
AT&T and Verizon subsequently suggested they could bring broadband services to underserved areas far more cost-efficiently with forthcoming wireless technology. That was presumably going to be fixed wireless broadband. But it now appears that fixed wireless broadband won’t be any more cost effective than U-Verse or FiOS. And if that’s the case, that leaves mobile 5G. Mobile 5G will be broadband, but it will also require lots of base stations (each of which will serve very few people) that all need to be connected by fiber.

In other words, mobile 5G isn’t going to be cost-effective for reaching underserved and unserved areas either. People in those areas are still waiting. It’s been 20 years for some of them.

It will be interesting to see if AT&T and Verizon propose some other schemes to fulfill promises made so many years ago. The evidence suggests that no one is going to hold them accountable for those promises, so the whole issue may be moot anyway.

Brian Santo has been writing about science and technology for over 30 years, covering cable networks, broadband, wireless, the Internet of things, T&M, semiconductors, consumer electronics, and more.

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