Insight

Four Things We Know About Fixed and Mobile Broadband Competition

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For some time, wired broadband, like cable and DSL connections, has been the standard method for Internet access. However, in the last ten years, advances in wireless technologies have changed the way consumers access the Internet. The study of fixed and wireless broadband is still very much in its infancy, but, what we do know paints a complex picture of the market. Especially for policymakers and regulators at the Federal Communications Commission (FCC) here are four things we know about wired and wireless broadband competition.

1. Mobile Internet use is increasing at the expense of wired connections.

Analysis of Census data from July 2015 finds that Americans' rapid shift towards mobile Internet service "appears to be coming at the expense of home broadband connections." The amount of households utilizing mobile services for Internet continues to grow:

- The number of households using wired technologies for high-speed Internet service, including cable, DSL, and fiber-optic connections dropped from 82 percent to 75 percent from July 2013 to July 2015.
- Simultaneously, the number of households that relied exclusively on mobile service doubled from 10 percent to 20 percent.
- eMarketer also found that mobile only Internet users in the US grew from 24.6 million in 2014 to 31.1 million in 2016.
- In another preliminary study, increased numbers of mobile broadband competitors were associated with service quality improvements among their fixed connection competitors, even after demographic and economic factors were held constant.

As wireless consumers are afforded more wireless options and higher speeds, it is likely that

they will continue to drop their wired broadband.

2. The switch to mobile broadband is a phenomenon that cuts across all demographics.

While some might claim that the cost of wired broadband is causing the shift towards wireless, decreases in wired broadband are occurring across all socioeconomic demographics, except for households making $75K to $100K. Americans of all races, ages, regions, and classes are switching to a smartphone only connection, as the chart below shows.

Percentage of Americans Who Rely Solely on a Smartphone for Home Internet Access

	2013	2015	% Change
All	8%	13%	+5
Male	9	14	+5
Female	8	13	+5
Parents	10	17	+7
Non-parents	8	12	+4
White	6	10	+4
African American	10	19	+9
Hispanic	16	23	+7
18-29	12	19	+7
30-49	9	16	+7
50-64	7	11	+4
65+	3	7	+4
Under $20K	13	21	+8
$20K-$50K	10	16	+6
$50K-$75K	5	10	+5
$75K-$100K	6	8	+2

Over $100K	4	6	+2
High school grad or less	11	18	+7
Some college/Assoc. degree	8	14	+6
College+	4	6	+2
Rural	9	15	+6
Urban	9	15	+6
Suburban	7	12	+5

Source: Pew

3. Cord cutters are flocking to cellular devices.

TV often comes bundled with Internet. A growing number of consumers are choosing to forgo TV and just purchase the Internet service, and these cord-cutters aren't just sticking to wired Internet. According to Pew, four in ten cord-cutters are primarily using their cellular devices to stream shows and movies.

4. The smartphone revolution is less than a decade old, and is just getting started.

The release of the iPhone in 2007 and the App Store in 2008 made mobile broadband a viable product, and sparked the smartphone revolution. Watching videos online, using apps, and mobile web surfing were pushed into the mainstream during this time.

The demands for data in turn pressed into action new technologies to deliver those bits faster and more efficiently. At the end of 2010, the current generation of mobile technology known as LTE began to be deployed, and demand quickly skyrocketed. From 2010 to 2014, the average data consumed over a wireless connection increased nearly 770 percent. In 2015 alone, mobile data traffic grew by 56 percent, nearly 3 times faster than fixed traffic.

Experts don't expect this increase to slow, mobile data traffic will grow 6-fold from 2015 to 2020 for a compound annual growth rate of 42 percent. Taken together, wireless broadband will become a cheaper and faster product, putting pressure on wired services.

Conclusion

While there are still limitations to wireless technology, it is foolish to denounce its importance to competition in the larger broadband market, which is often seen through the lens of wired broadband. The extensive use by consumers of mobile broadband is creating a

vastly different competitive world.