5G: Another Next-Generation Disappointment?

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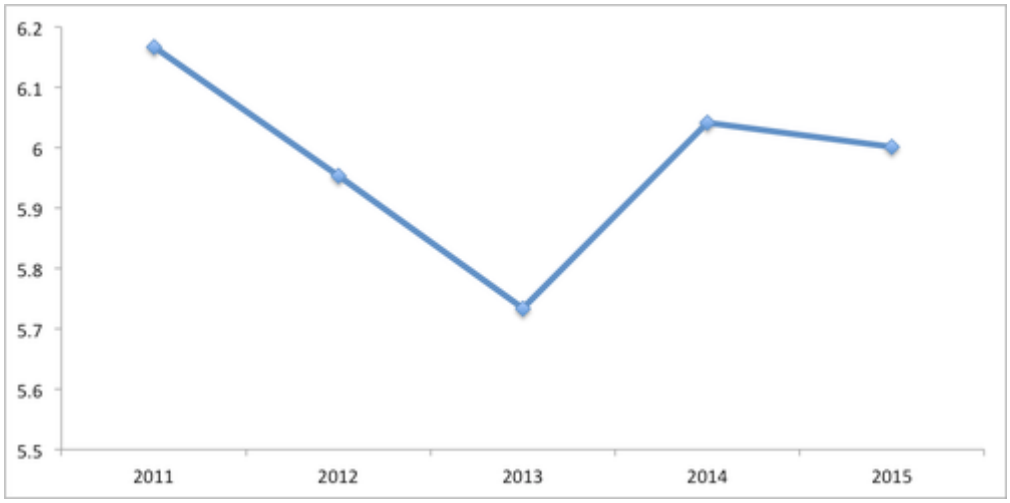
The telecom industry likes using the word "cyclical" to describe the ups and downs it experiences as new technologies are introduced. But when it comes to the narrative that accompanies this process, "recycling" might be more apt. With a few variations, the story has become all too familiar: A next-generation technology hoves into view, is quickly heralded as a game-changer and ultimately underwhelms. The 5G standard now generating reams of hype could prove the biggest anticlimax of all.

That it will disappoint seems inevitable following so much publicity and the precedent set by previous standards. A genuine game-changer, 3G ushered in the mobile Internet but could not cope with traffic demands. The subsequent 4G standard merely rectified that problem, bringing nothing more than additional speed (to some observers, 4G is simply 3G made good).

It would be curmudgeonly to suggest these technologies have been unimportant. The mobile Internet has underpinned the smartphone revolution, with huge implications for the way people live and work. It has fueled the growth of the digital economy and propelled digital pioneers like Uber, a ride-hailing app service that has turned the taxi business upside down.

But it is players outside the telecom industry that have garnered the rewards and recognition. While sales of smartphones have soared, and Uber's roster of drivers has lengthened, telco revenues have stubbornly refused to grow, in many cases, and often been in decline. In the UK, service revenues generated by mobile giant EE (now a part of fixed-line incumbent BT Group plc (NYSE: BT; London: BTA)) fell from £6.2 billion ($7.5 billion) in 2011, the year before its 4G launch, to £6 billion ($7.3 billion) in 2015. This was despite a move into the fixed broadband and TV markets over that period. Consumers treasure their devices but have scant regard for the networks that connect them.

Service Revenues at EE (£B)



Source: EE.

This never-ending story could darken with the launch of 5G in the 2020 timeframe. From a consumer perspective, the forthcoming technology will bring about further -- albeit dramatic -- improvements in connection speeds, putting it on a serious footing with some advanced fixed-line technologies. It will also lead to a reduction in network latency, or the delay that occurs during data downloads. As with 4G, these features should support the use of more advanced data services, such as Ultra HD video. But customers already enjoying a high-quality audiovisual experience on 4.5G networks will notice few extra benefits from 5G. What's more, many of the services that consumers really value on the move, such as Uber, do not require high-speed or low-latency connections. (See 4.5G Sets High Bar for 5G.)

John Strand, an analyst at Strand Consult and one of the industry's more outspoken commentators, is typically gloomy about 5G for such reasons. "People will likely recognize that most 5G services can run on 4G networks," he writes in a set of predictions for 2017. "The change from 4G to 5G will not be as dramatic as the jump from 3G to 4G."

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Experience also suggests that higher speeds will not spur any kind of sales growth. "We have been increasing the data bucket since the launch of 4G and yet the revenue trend is negative and has been declining since 2008," says Bengt Nordström, the CEO of the Northstream market research and consulting business. "Launching 5G doesn't mean revenues will increase but it might help operators to keep their customers."

Indeed, while Nordström believes mass deployments are about six years away, competitive pressure will sooner or later spur operators to invest in 5G networks for consumers. Yet much of the 5G interest lies elsewhere -- in enterprise customers and public sector organizations that are digitalizing their products and services. The low latency that comes with 5G could take a car company or healthcare provider into uncharted territory, and positions 5G for a much-vaunted role in the so-called Internet of Things (IoT). "Low latency is the biggest driver [of 5G]," said Sami Elhage, the president of mobile networks for Nokia Corp. (NYSE: NOK), during a recent press briefing in London. "Capacity you can play with in 4G." (See 5G Guru Predicts Rollout Disparity and Nokia: A Global Network Operator for the Enterprise?.)

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