Verizon’s nationwide 5G will only be a “small” upgrade over 4G at first

Enlarge / A Verizon booth at Mobile World Congress Americas in Los Angeles in September 2018.

reader comments

30 with 24 posters participating

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5G is one of the most hyped technologies in recent memory, but 5G hype continues to outpace evidence that it will meaningfully change the mobile experience for the majority of smartphone users in the US.

Verizon Communications CEO Hans Vestberg said yesterday during a J.P. Morgan investor conference that most 5G mobile users will see a “small” upgrade at first, and he stressed the continued relevance of 4G. Vestberg reiterated previous Verizon statements that the biggest improvements will come on millimeter-wave spectrum in the most densely populated and trafficked areas.

But millimeter-wave frequencies don’t travel as far as low- and mid-band radio waves and are easily blocked by walls and other obstacles, making them unsuitable for nationwide coverage. As such, Vestberg was asked whether consumers will see a noticeable difference between 4G and 5G in areas without millimeter-wave coverage. Vestberg said that customers will eventually see “dramatic improvements,” but not in the near term.

“In the beginning, you’re going to see some improvements. Over time, dramatic improvements,” Vestberg said. “We already have one of the best 4G networks in the world, so that’s what you’re competing with. It’s not like you’re competing with an inferior 4G network. In the beginning, it’s going to be small [improvements on 5G].”

Similarly, Verizon Consumer Group CEO Ronan Dunne in August 2019 said that 5G on lower-spectrum bands will be like “good 4G.” T-Mobile has said that millimeter-wave spectrum “will never materially scale beyond small pockets of 5G hotspots in dense urban environments” and has launched 5G across the US on its low-band 600MHz spectrum.

Verizon plans to double its 5G deployment from 30 to 60 cities this year. Verizon’s early millimeter-wave launches have been sparse, and the network has been unable to cover entire sports arenas. It’s not clear when Verizon 5G will be available nationwide over low-band spectrum.

Verizon includes 5G in certain unlimited plans, and charges $10 extra per month for 5G access in other plans.

5G will get better, Vestberg promises

Vestberg noted yesterday that 4G has advanced significantly over the years with technologies like carrier aggregation, to the point where 4G can now offer 100Mbps speeds. (Verizon’s average 4G download speed is 25.9Mbps, according to OpenSignal tests.) With 5G, Vestberg said that “evolution of the technology and software will drive improvements on different spectrum.”

As Light Reading wrote yesterday, “Vestberg’s hedging is essentially an acknowledgement that the operator cannot possibly offer the same kinds of blazing-fast 5G speeds it

offers in some downtown areas on a nationwide basis.”

To extend 5G nationwide, Verizon plans to use “Dynamic Spectrum Sharing (DSS) [that] essentially will allow 4G and 5G users to take turns using the exact same chunk of spectrum in 1 millisecond increments,” Light Reading wrote. “[Vestberg] said Verizon’s network team will have DSS ready when Verizon’s commercial team decides to turn the technology on. But he didn’t say when that would happen,” the article also said.

Verizon plans to launch 20 mobile devices with 5G by the end of 2020. Vestberg said yesterday that Verizon has launched three of them so far and that there are no delays expected on the plan to launch 20 devices.

Vestberg also said that despite the pandemic, construction of base stations and fiber that provides bandwidth to wireless networks is going well. In addition to mobile service, Verizon has big plans for 5G home broadband that could offer a decent option to customers in areas that lack cable or fiber service.

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