Doing More With Less: Efficient Wireless Industry Needs More Spectrum to Meet Future Demand

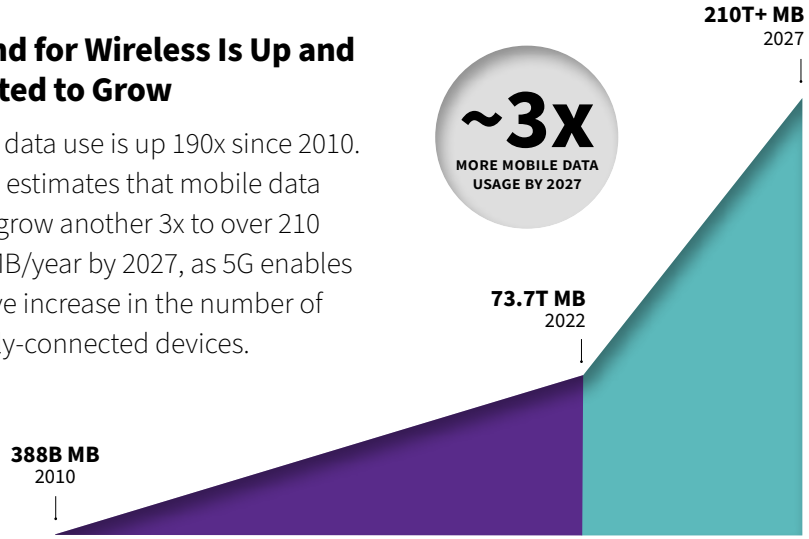
Wireless providers are extremely efficient stewards of licensed spectrum. But relying on efficient use and new cell sites won't sustain their existing spectrum holdings in the years ahead as the U.S. faces growing demand for mobile data and the massive influx of 5G devices expected as networks continue to mature. To meet these needs and continue to power the economy, a pipeline of full-power, exclusive-use, licensed spectrum is essential.

Wireless Providers Increased Spectrum Efficiency by a Factor of 42

During the 4G decade, providers increased their spectrum efficiency by a factor of 42. They achieve this efficiency by refarming existing holdings toward new generations of wireless, moving as quickly as possible to put new spectrum to use, implementing network enhancements, such as MIMO, improving capacity with more cell sites, and more.

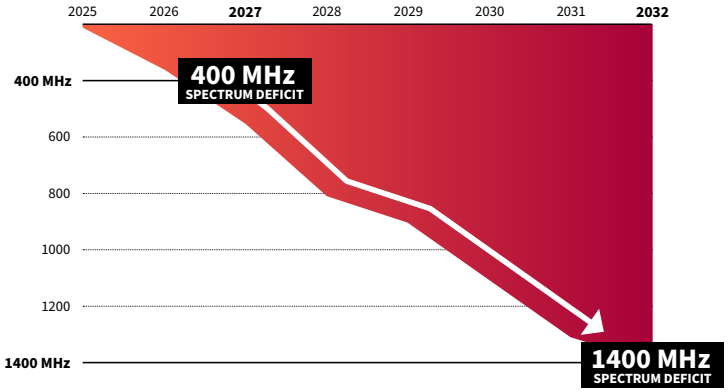
Demand for Wireless Is Up and Predicted to Grow

Wireless data use is up 190x since 2010. Ericsson estimates that mobile data use will grow another 3x to over 210 trillion MB/year by 2027, as 5G enables a massive increase in the number of wirelessly-connected devices.



U.S. Does Not Have Enough Spectrum to Meet 5G Demand

Brattle Group finds the U.S. needs 400 megahertz of full power, licensed spectrum in the next five years to meet projected demand. This deficit will grow by more than 3x to nearly 1,500 megahertz by 2032.



To Continue To Meet Demand, More Licensed, Exclusive-Use Spectrum Is Needed

Policymakers should identify at least 1,500 megahertz of licensed, mid-band spectrum. Accenture reported the lower 3 GHz, 4 GHz, and 7/8 GHz spectrum bands would help meet the demand for wireless services and scale 5G.

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