

Sept. 19, 2018

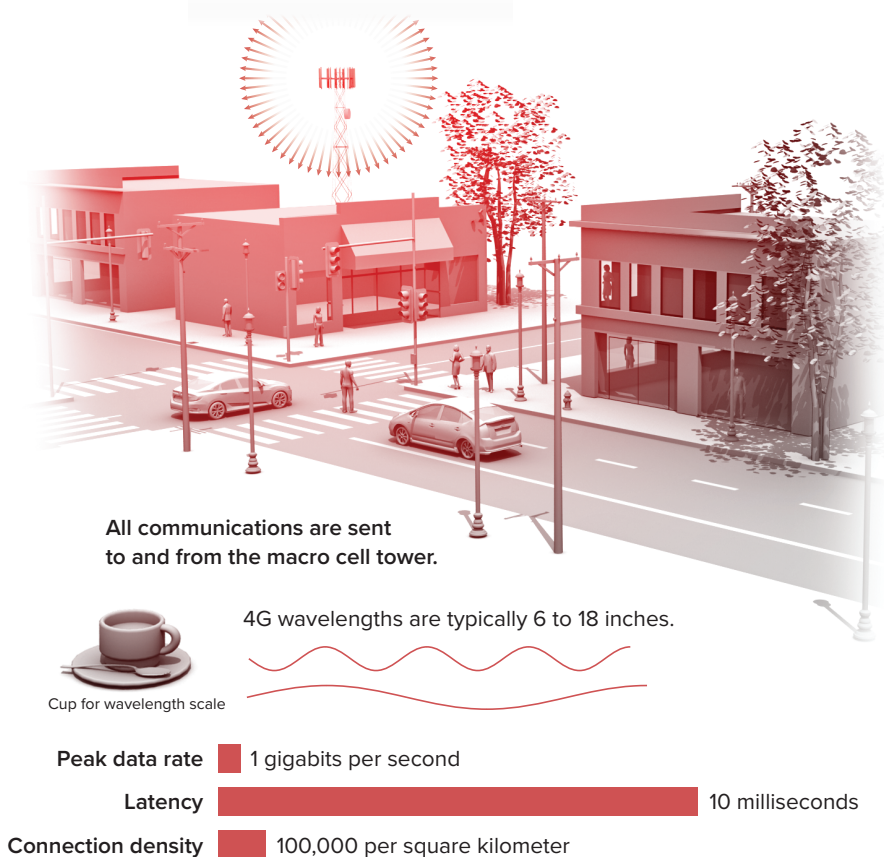
Small Cell Sites and the Race to 5G, Explained

The next generation of wireless service — 5G — will rely on higher-frequency wavelengths transmitted through a series of “small cell” sites to support faster, more reliable service on many more devices. Small cells are often compared to a pizza box or backpack in size and are considered the “building blocks of 5G.” Analysts expect 5G will require nearly one million small cell installations over the next decade.

Billions of dollars are potentially at stake for the country that leads in 5G and sets global standards, as the United States did with the implementation of 4G. To take the lead again and beat out competitors such as China and South Korea, the wireless industry argues the local approval process for small cells needs to be standardized — so they can install small cells easier, faster and cheaper than current regulations designed for large, traditional cell towers allow. More than 20 statehouses have updated their regulations, sometimes amid controversy, but the FCC and Congress could soon step in with a national standard.

4G

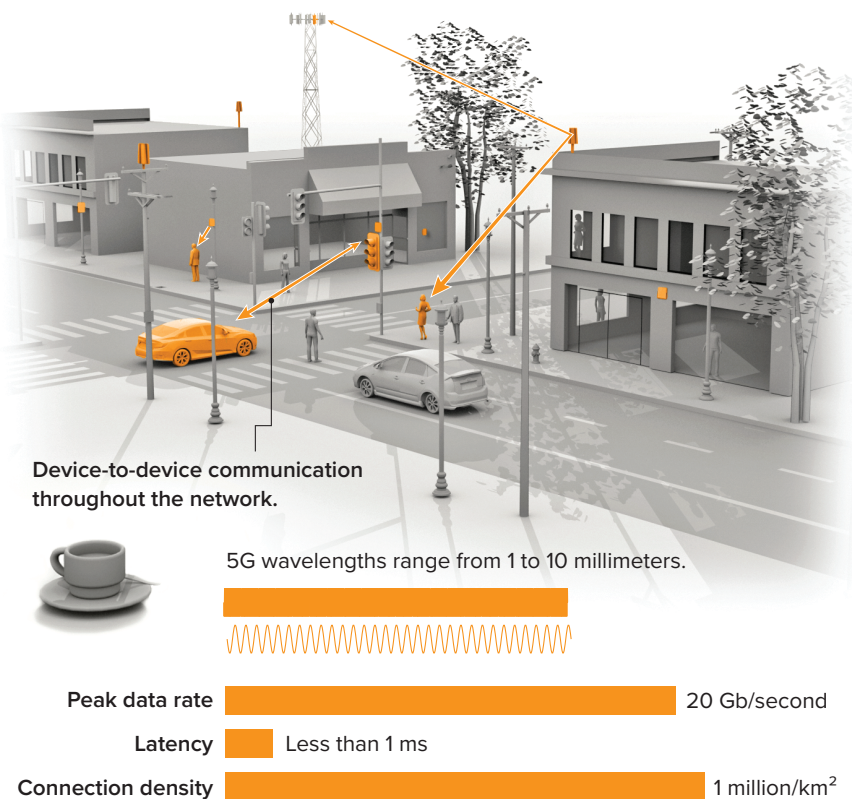
The long wavelengths of radio frequencies used in 4G communications can penetrate most above-ground structures and travel farther than high-frequency waves. The antenna broadcasts a signal to connected devices in all directions.



5G

“Millimeter waves” used for 5G transmission are higher-energy frequencies able to relay more information in less time than 4G, but the waves do not travel as far and have trouble penetrating walls, glass, rain — even humidity.

Focused short-range communications are relayed through a system of numerous small antennae, or small cells, so that a moving device will pick up a signal from one small cell to the next without a disruption in service.



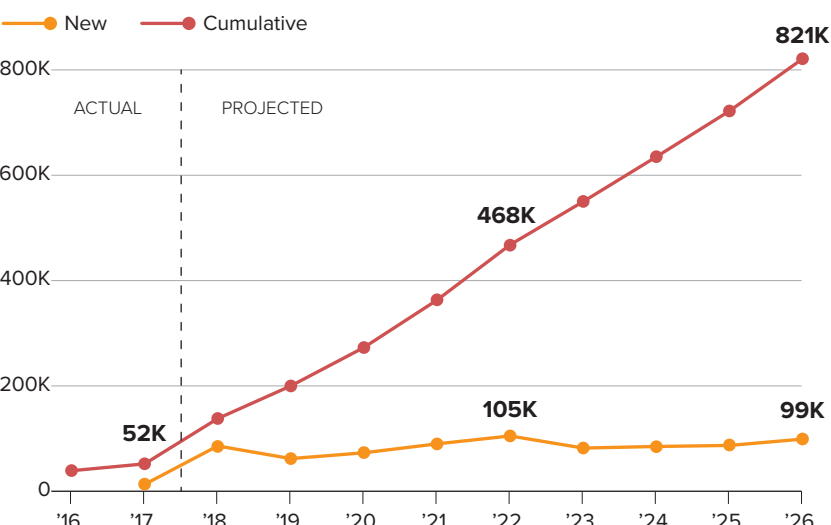
The Need for Speed: ‘Streamlined’ Small Cell Regulations in States a Must for Wireless Industry

Analysts expect there will be more than 800,000 small cells installed across the United States by the end of 2026 with the rollout of 5G.

To expedite the installation process, 21 states have enacted legislation to streamline small cell regulations.

Updating regulations has been a top lobbying priority for the wireless industry, which argues that the rules intended for large cell towers are unnecessarily burdensome and outdated when applied to small cells, compounded by the sheer number that will need to be approved and installed.

Small cell installations in the U.S. by year’s end

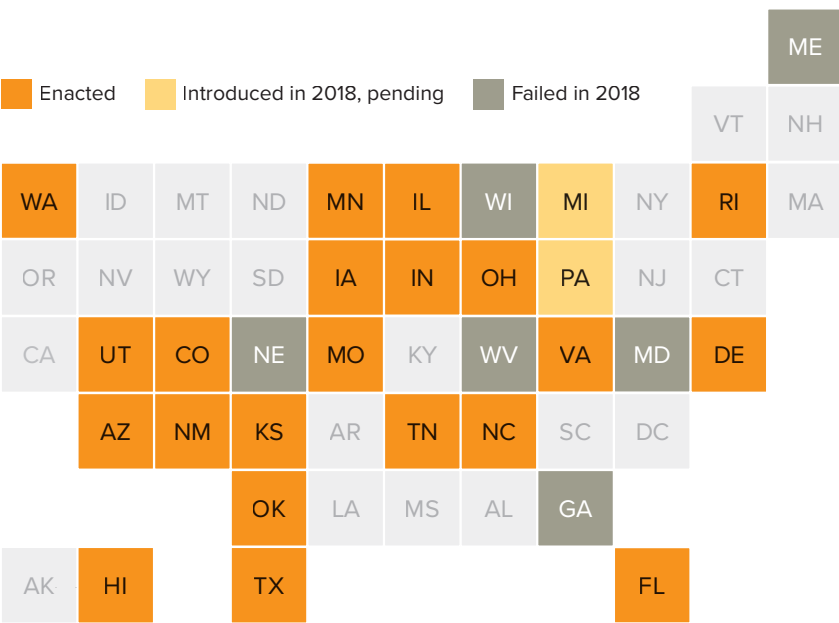


21 states have enacted streamlined small cell legislation already

Although the details vary, all of the enacted legislation allows providers to install small cell technology in public rights of way with approval and includes nondiscrimination provisions that prevent a local permitting authority from giving preferential treatment to one company or carrier over another. Some also place a cap on fees.

The legislation has been controversial in some states, however, with residents worried about potential health implications and local governments concerned about limits on their regulatory authority.

California Gov. Jerry Brown (D) vetoed a small cell bill in October 2017, noting that localities required “a more balanced solution.” Similar legislation has failed in six other states this year and remains pending in Michigan and Pennsylvania.





What About States Without ‘Streamlined’ Laws? FCC and Senators Introduce National Standard

Both the FCC and Senate have measures pending that would apply many of the provisions states have passed at the national level. While the FCC does not have authority to write new law, an order introduced by Commissioner Brendan Carr lays out how the FCC could clarify that many provisions apply nationally already under existing statutes in the Communications Act.

In his order, Carr writes that “regulatory obstacles have threatened the widespread deployment of these new services and, in turn, U.S. leadership in 5G.” Given the stakes of 5G’s rollout, Carr has said this order allows the FCC to “exercise our authority to interpret the [Communications] Act and clarify the preemptive scope that Congress intended.” The full FCC will vote on Carr’s order at its Sept. 26 meeting. The FCC also voted 3-2 on March 22 to exempt small cells from environmental reviews required of macro cell towers.

Both the order and the Senate’s STREAMLINE Act propose a time limit for authorities to process applications and require application fees to reflect actual costs. The STREAMLINE Act includes a “deemed granted” provision if the office doesn’t act on the application in time; the FCC order does not. There is not yet a comparable House version of the STREAMLINE Act. In response to the bill, the National Association of Counties has called on its members to lobby Congress to draft an alternative solution that speeds small cell deployment without reducing local zoning authority or the ability to raise revenue.

 <p>Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment</p> <p>Declaratory Ruling and Third Report and Order</p> <p>WT Docket No. 17-79; WC Docket No. 17-84</p>	 <p>STREAMLINE Small Cell Deployment Act</p> <p>S. 3157 introduced June 28, 2018, by Sens. John Thune (R-S.D.) and Brian Schatz (D-Hawaii)</p> <p>Referred to Senate Commerce, Science and Transportation committee</p>
<p>WHAT THEY PROPOSE ON:</p> <p>APPROVING AND DENYING APPLICATIONS</p> <p>“...certain reasonable aesthetic considerations do not run afoul of Sections 253 and 332. This responds in particular to many concerns we heard from state and local governments about deployments in historic districts.”</p>	<p>Permits must be approved or denied on publicly available criteria that are reasonable, objective and non-discriminatory.</p> <p>Small cell applications may be denied or regulated for objective and reasonable structural engineering standards, safety requirements or aesthetic or concealment requirements. Denials must be in writing and supported with evidence.</p>
<p>TIME LIMITS TO ACT ON APPLICATIONS</p> <p>“...we read Sections 253 and 332 as allowing 60 days for reviewing the attachment of a small wireless facility to an existing structure and 90 days for the construction of new qualifying facilities.”</p> <p>No “deemed granted” provision, but... “failing to issue a decision up or down during ... is not simply a ‘failure to act’ within the meaning of applicable law. Rather, missing the deadline also constitutes a presumptive prohibition.”</p> <p>The shot clock would begin when the application is submitted, not once it is complete. “The clock can be paused, however, if the locality notifies the applicant within 30 days that the application is incomplete.”</p>	<p>Applications must be acted on no later than 60 days for requests to collocate equipment and 90 days for other requests. Municipalities with fewer than 50,000 residents have more time to act. The authorizing government body can request a one-time 30-day waiver from the FCC.</p> <p>If the issuing authority does not obtain a waiver and has not acted on an application in time, the request will be deemed granted 31 days after the applicant provides written notice of the authority’s failure to act.</p> <p>Authorities must notify the applicant within 10 business days of an incomplete request, or the request will be considered complete.</p>
<p>FEES</p> <p>“Sections 253 and 332(c)(7) limit state and local governments to charging fees that are no greater than a reasonable approximation of their costs for processing applications and for managing deployments in the rights-of-way.”</p>	<p>The issuing authority may charge application fees that are publicly disclosed, competitively neutral, technology neutral, nondiscriminatory and are based on actual and direct costs, such as maintenance and inspection of equipment.</p>
<p>RADIOFREQUENCY EXPOSURE</p> <p>Defines a small cell site as one that “does not result in human exposure to radiofrequency radiation in excess of the applicable safety standards specified in Rule 1.1307.”</p>	<p>Authorities may not regulate the “placement, construction or modification” of small cells “on the basis of the environmental effects of radio frequency emissions” if they are otherwise in compliance with FCC emission regulations.</p>
<p>Sources: FCC, Senate, National Conference of State Legislatures, CTIA – The Wireless Association, Accenture Strategy report “Impact of Federal Regulatory Reviews on Small Cell Deployment,” POLITICO Pro Legislative Compass</p> <p>By Janie Boschma and Patterson Clark, POLITICO Pro DataPoint</p>	

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