Government Authority and Wireless Telecommunications Facilities

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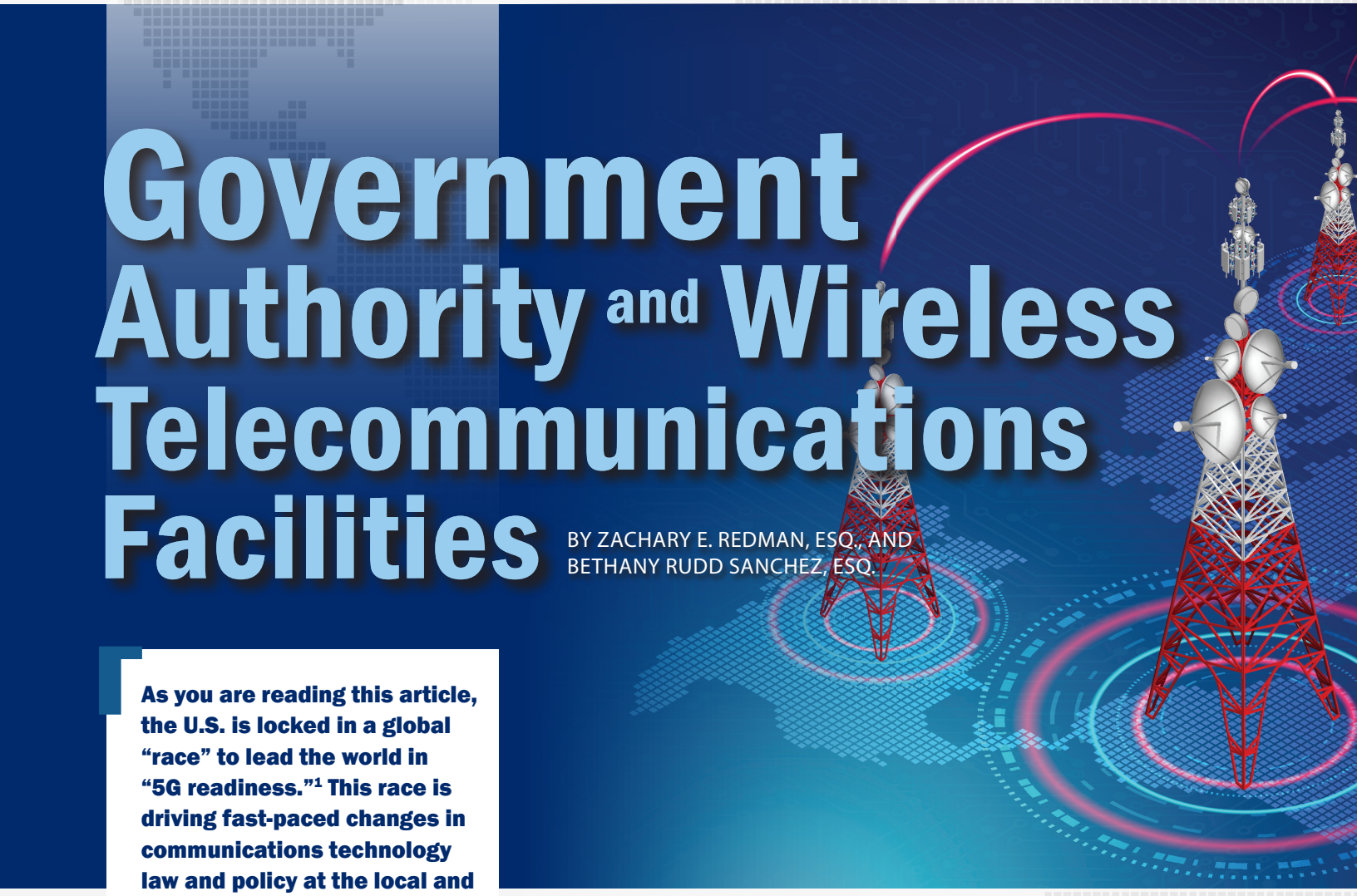

As you are reading this article, the U.S. is locked in a global "race" to lead the world in "5G readiness."[1] This race is driving fast-paced changes in communications technology law and policy at the local and national levels. Professional advisors of state and local government leaders need to keep themselves informed of the relevant changes and understand their potential impacts.

Direct, immediate investments in building out 5G networks, in capital and labor alone, are estimated to contribute $400-$500 billion to the U.S. gross domestic product and create up to 1 million jobs by 2030, while modernized governmental policies are unlocking spectrum for wireless use and streamlining local approval processes for installations of wireless infrastructure, including "small cells."[2] In fact, the Trump Administration declared the deployment of 5G technology a national priority and the Federal Communications Commission (FCC) initiated a series of actions during the tenure of former Chairman Ajit Pai which, together, preempt and clarify aspects of local power in managing municipal right-of-way (ROW) and property, and in exercising zoning authority in an effort to speed 5G rollout. As of February 2021, more than 25 states across the country have acted on 5G and wireless telecommunications, while another 14 states have pending actions.[3] This article discusses some of the recent influential FCC actions after providing an overview of relevant concepts for readers who are new to wireless telecommunications and 5G technology.

WHAT ARE SMALL CELLS? WHAT IS 5G?

Cellular (or mobile) networks cover a service area that is divided into geographic areas called cells. Wireless devices in a cell are connected to internet and telephone networks by radio waves transmitted through a local antenna.

"Macro" cell infrastructure, such as towers generally reaching up to 199 feet in height, provide coverage to a large area of mobile access. Multiple service providers often attach antennas and other equipment to macro cell support structures. Such "collocation" lowers the costs of deployment and reduces pole proliferation in the community.

Small cells are low-powered cellular radio access nodes with a shorter range and relatively smaller equipment and structures than the macro cells. Wireless carriers use small wireless facilities to cover gaps or stretch existing wireless networks and to increase capacity in high demand areas. Smalls cells are integral to the deployment of 5G networks.

5G is understood generally as the fifth-generation cellular network technology that provides internet access with faster and lower-latency (i.e. more responsive)

connections, and the eventual ability to connect many more smart devices at once in the Internet of Things (IoT).[4] 5G comes in three bands: low, mid, and high.

- Low-band, the predominantly available form of 5G today, allows for service over longer distances and penetration through walls.
- Mid-band does not travel as far as low-band, but it delivers impressive download speeds (up to 1 gigabit per second). For this reason, it has been referred to as the "Goldilocks" and it carries the most 5G traffic in other countries with such networks.[5]
- The fastest 5G connections use ultra-high-frequency radio waves. While such high-band spectrum could unlock exceptional speeds (up to 10 gigabits per second), it is more reliable over short distances and struggles with physical obstacles, such as foliage, people, and rain. High-band connections are most suitable for dense urban environments or areas with large crowds.

Due to the increased bandwidth, 5G wireless networks will be used increasingly for general internet service at home and on the go. The 5G networks will also make possible new applications in IoT and machine-to-machine areas. The broad deployment of 5G technology is expected to unleash a generation of commercial innovation (e.g., resilient public safety networks, automated vehicles and logistics, industrial automation, telemedicine, virtual and augmented reality) new educational opportunities, and economic expansion.

EXPANDING FEDERAL PREEMPTION TO SUPPORT 5G DEPLOYMENT

The siting of wireless infrastructure is governed by the laws of the applicable government entity that has control over the underlying property, as well as applicable federal, state, and local law. Local authorities review permit applications for a variety of issues, including those pertaining to public safety, accessibility, community aesthetics, and management of public right-of-way. Local governments may charge fees for application process, right-of-way access, and ongoing access or use of municipal property. Federal preemption of local authority over wireless infrastructure is based primarily on three laws: the Communications Act of 1934 (1934 Act), the Telecommunications Act of 1996 (1996 Act) and a provision of the Middle-Class Tax Relief and Job Creation Act of 2012 (Spectrum Act). The FCC continues to clarify the scope of federal preemption to ensure the swift rollout of 5G wireless technologies.

Eligible facilities requests are critical time and cost savers for the telecommunications industry as it leverages existing cellular infrastructure to densify current 4G networks and install new 5G equipment. The FCC continues to scrutinize and parse local authority over permitting processes. For example, although Section 253(a) of the 1934 Act broadly limits local authority to regulate telecommunications, Section 253(b) generally allows for local requirements that are competitively neutral and "necessary to preserve and advance universal service, protect the public safety and welfare, ensure the continued quality of telecommunications services, and safeguard the rights of consumers." Additionally, Section 253(c) expressly reserves local authority to manage public rights-of-way and receive "fair and reasonable compensation" on a competitively neutral and nondiscriminatory basis.

Under Section 332 of the 1996 Act, a government shall not prohibit or have the effect of prohibiting the provision of telecom services when managing the placement, construction, and modification of wireless telecommunications facilities. The 1996 Act also requires that a government act on any permit applications "within a reasonable period of time" after filing, and any denial of such an application must be "in writing and supported by substantial evidence contained in a written record."

Congress, through Section 6409(a) of the Spectrum Act in 2012, mandated approval of "any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station." The FCC then adopted implementing regulations and interpretations that specify, among other things, the timeline for application reviews (so-called "shot clocks").[6] If a government receives an incomplete application, it has limited time to take action to "toll" the shot clock by notifying applicants in writing of the missing information and related requirements. In

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2020, the FCC "clarified" the 2014 order by imposing further limitations on the consideration of eligible facilities requests.[7]

In September 2018, the FCC issued a sweeping declaratory ruling and order preempting local authority in connection with the deployment of small cell facilities.[8] After finding that the "many-fold increase" in small cell facilities "will magnify per facility fees" charged by governments, "fees that once may have been tolerable when providers built macro towers several miles apart now act as effective prohibitions when multiplied" by the increased number of small cell facilities required to support 5G technology. The FCC adopted a "cost-based" approach in determining that ROW access fees, fees for use of government property located in the ROW, and application fees are prohibited unless the fees are a reasonable approximation of the objectively reasonable costs of the government. Non-fee requirements, such as aesthetics, undergrounding, and spacing, must be reasonable and be published in advance.[9] The Small Cell Order also imposed shorter shot clocks for requested collocations (60 days) and new infrastructure (90 days).

Under authority delegated in Section 207 of the 1996 Act, the FCC recently expanded the scope of the Over-the Air Reception Devices Rule (OTARD Rule) in January 2021.[10] The OTARD Rule prohibits governmental restrictions that impair the installation, maintenance, or use of antennas for local TV, fixed wireless, or broadband internet access on homes. The FCC expanded the scope of the OTARD Rule to cover hub and relay antennas used to distribute fixed wireless broadband services to multiple customer locations, as long as the service is for an on-premises customer. The updated OTARD Rule is expected to accelerate the rollout of 5G-supporting wireless networks and high-speed internet services as well as potential residential deployments of IoT infrastructure.

The FCC has also issued orders broadly prohibiting moratoria on wireless applications and permitting in more or less all circumstances.[11] The prohibition underscores the importance to local authorities of continuously being informed of the latest technology developments for planning purposes as the industry and federal policymakers charge ahead in the race for 5G-readiness and begin preparations for 6G.[12]

ENDNOTES:

1. See, e.g., *The Global Race to 5G: Spring 2019 Update*, CTIA, accessed at https://www.ctia.org/news/the-global-race-to-5g-spring-2019-update (Apr. 18, 2021).
2. *5g Promises Massive Job and GDP Growth in US*, Boston Consulting Group, Feb. 2021, accessed at https://www.ctia.org/news/report-5g-promises-massive-job-and-gdp-growth-in-the-u-s (Apr. 18, 2021).
3. *Mobile 5G and Small Cell 2021 Legislation*, Heather Morton, National Conference of State Legislatures, Feb. 16, 2021, accessed at https://www.ncsl.org/research/telecommunications-and-information-technology/mobile-5g-and-small-cell-2021-legislation.aspx (Apr. 18, 2021). The Nevada Legislature has not taken action on small cells or 5G as of the drafting of this article, thus these matters are addressed, if at all, at the local government level.
4. *See, e.g., What is 5G?*, Sascha Segan, *PCMag*, last updated Feb. 25, 2021, accessed at https://www.pcmag.com/news/what-is-5g (Apr. 18, 2021).
5. The FCC recently raised more than $81 billion for the U.S. Treasury in an auction of the sought-after mid-band spectrum. *See Companies have bid $81 billion for the airwaves to build 5G, and winners will be revealed soon*, Kif Leswing, CNBC, Jan. 31, 2021, accessed at https://www.cnbc.com/2021/01/31/5g-spectrum-auction-bids-total-80point9-billion-winners-revealed-soon.html (Apr. 23, 2021).
6. *Acceleration of Broadband Deployment by Improving Wireless Facilities Siting Policies*, WT Docket No. 13-238, Report and Order, FCC 14-153 (2014).
7. *Implementation of State and Local Governments' Obligation to Approve Certain Wireless Facility Modification Requests Under Section 6409(a) of the Spectrum Act of 2012*, WT Docket No. 19-250, Declaratory Ruling and Notice of Proposed Rulemaking, FCC 20-75 (2020).
8. *Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment*, WT Docket No. 17-79 and WC Docket No. 17-84, Declaratory Ruling, Report and Order, FCC 18-133 (2018) ("Small Cell Order"). The order defines "Small Wireless Facilities" as facilities mounted on structures 50 feet or less in height or on structures no more than 10 percent taller than adjacent structures with an antenna no more than three cubic feet and total wireless equipment no more than 28 cubic feet.
9. Although the Ninth Circuit partially invalidated preemptive elements for aesthetics review, it upheld limitations on non-fee requirements generally, including the objective and "no more burdensome" criteria. *See City of Portland v. FCC*, 969 F.3d 1020 (9th Cir. 2020).
10. *Updating the Commission's Rule for Over-the-Air Reception Devices*, WT Docket No. 19-71, Report and Order, FCC 21-10 (2021) (OTARD Order).
11. *Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, WT Docket No. 17-79 and WC Docket No. 17-84, Third Report, Order and Declaratory Ruling, FCC 18-111 (2018) (Moratoria Order).
12. Rest assured that you still have time to buy your 5G phone and devices. 6G does not exist … yet, although deployments are forecasted to begin as soon as 2030. *See What is 6G?*, Sascha Segan, *PCMag*, last updated Feb. 25, 2020, accessed at https://www.pcmag.com/news/what-is-6g (Apr. 19, 2021).

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