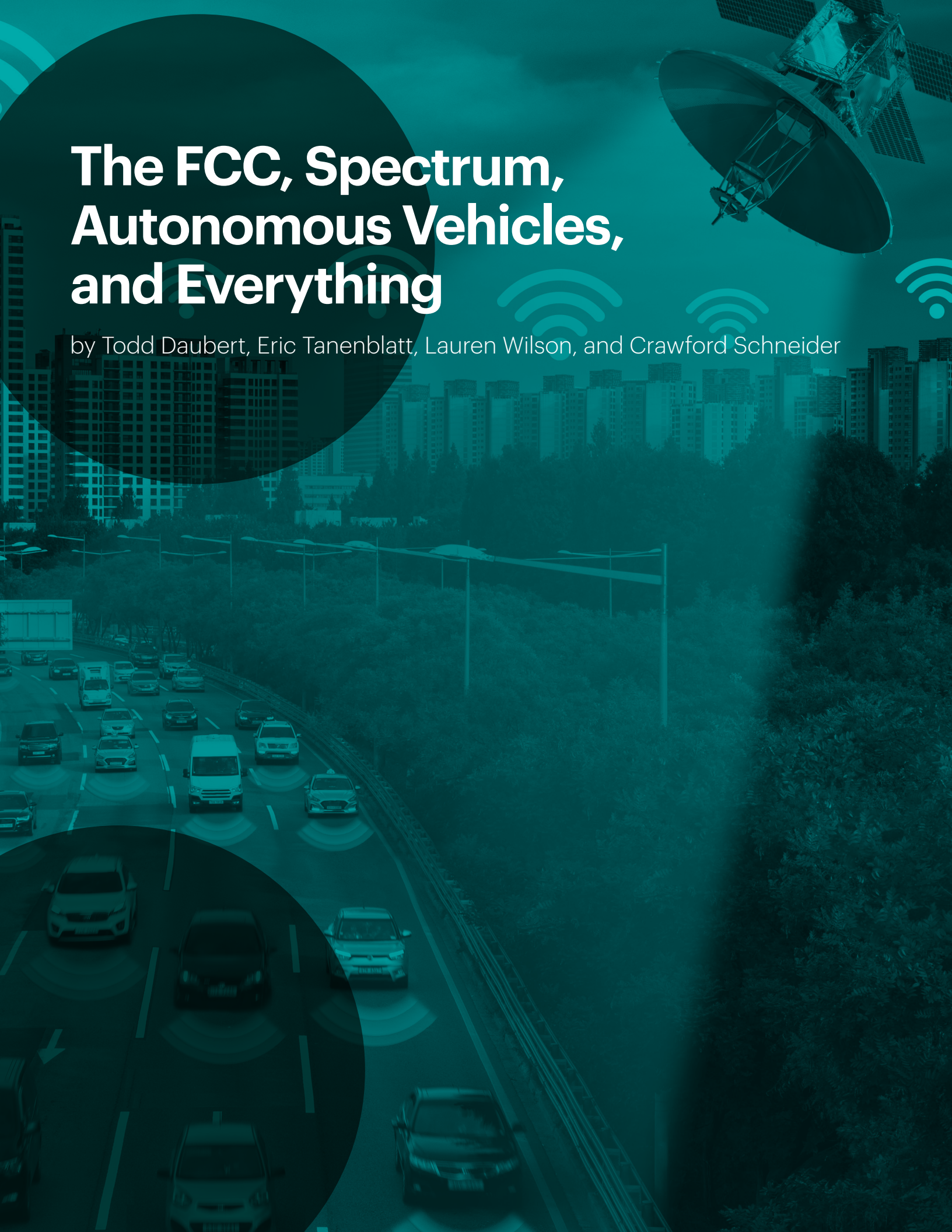

# The FCC, Spectrum, Autonomous Vehicles, and Everything

by Todd Daubert, Eric Tanenblatt, Lauren Wilson, and Crawford Schneider

Unlocking the full potential of autonomous transportation will require smart, forward-looking decisions about how to manage the spectrum on which driverless vehicles will rely. Ongoing policy debates at the Federal Communications Commission, led by Chairman Ajit Pai, shows the United States is preparing for an autonomous future. Prior to the COVID-19 pandemic, in December 2019, the FCC revealed next steps for re-allocating the 5.9 GHz band for both unlicensed uses and transportation-specific applications with an eye to autonomous vehicle deployment.

In an effort to provide predictability for automakers and broadband providers, the FCC voted unanimously in December to initiate a process that would open up the 5.9 GHz spectrum band for new uses. After an extension of the comment period until April 27th the Commission is now reviewing information provided by various stakeholders.

By way of background, the agency first set aside spectrum in what is called the 5.9 GHz band to support transportation uses in 1999. Under current FCC rules, the 5.9 GHz band is reserved for dedicated short-range communications (DSRC), which facilitates both vehicle-to-vehicle and vehicle-to-infrastructure communications. Because DSRC has been around for three decades, some automakers and localities had begun to equip vehicles and roadside infrastructure with DSRC-based technologies. However, predictably, technology has advanced since 1999, resulting in several alternatives to DSRC, the most noteworthy being cellular vehicle-to-everything (C-V2X) communication that offers vehicle-to-vehicle, vehicle-to-infrastructure and vehicle-to-pedestrian communication.

To address technological advancements and the underutilization of the 5.9 GHz band to date, Chairman Pai proposed allocating the upper 20 MHz of the 5.9 GHz band for a new automotive communications technology, and specifically C-V2X, while saving the lower 45 MHz of the band for unlicensed uses like Wi-Fi. Additionally, the FCC sought public input on whether to allocate the remaining 10 MHz in the band to C-V2X or DSRC.

According to Pai, C-V2X would use standard cellular protocols to provide direct communications between autonomous vehicles and other vehicles on the road, in addition to infrastructure, cyclists, pedestrians and road workers. C-V2X is also expected to support new, advanced applications as cellular companies transition to faster, more responsive 5G networks. Opening the band to C-V2X it is backed by large automakers as well as wireless carriers and wired broadband providers, who support the proposal for its commitment to both C-V2X and unlicensed.

Notably, while many on Capitol Hill celebrated the proposed changes, others remain skeptical. In January thirty-eight lawmakers, all members of the House Committee on Transportation and Infrastructure, signed a letter in opposition to the proposal. The letter noted that the DoT believes the shift in policy "jeopardizes the significant transportation safety benefits that the allocation of this band was meant to foster."

Industry organizations have also weighed in on both sides of the plan. In a letter dated June 23rd, groups representing the freight industry and passenger transportation sectors called on a Senate panel to direct the FCC to reconsider the proposal to shift a portion of auto safety airwaves for broadband uses.

On the other side of the issue are those with an interest in opening up the band to non-transportation uses, including leading edge companies, wireless infrastructure providers, and cable operators. Some stakeholders that supported the FCC's proposal to free up the lower 45 MHz of 5.9 GHz spectrum for WiFi, and are now going further, calling for the other 30 MHz to be available for WiFi uses as well. However, at present, that suggestion is not under formal consideration by the FCC.

Now that the comment period has closed, next steps would involve evaluating comments from interested stakeholders and developing final rules on which the Commission would vote. Even if the final rules adopted by the FCC are similar to the Chairman's current proposal, it will still take years for the auto industry to coalesce around and implement C-V2X. As such, consumers may not feel the practical implications of this decision for years and possibly decades. Nonetheless, carving out dedicated space for C-V2X will give the industry much of the assurance it needs to invest in an autonomous future.

Smart cities digital solutions often collect data without consent.

**Todd Daubert** is a partner in Dentons' Washington, DC, office and chair of the Firm's Communications and Technology sectors. He also leads the US Privacy and Data Security team within Dentons' global Privacy and Security group. Additionally, he chairs the Policy and Initiatives Committee of the North America Board of the Mobile Entertainment Forum, the leading trade organization for the mobile content and commerce industry. An engineer by training, Todd has nearly two decades of experience advising companies that develop, integrate and deploy new technologies, crafting innovative solutions that help clients, from startups to global players, achieve their strategic objectives and minimize their risks, resulting in improved business results and profitability. His client base includes some of the world's largest technology companies driving the most dynamic and major growth area in the global economy. Todd is a co-Chair of the Telecommunications and Privacy and Cyber Security Pillars of the Dentons Smart Cities & Connected Communities Think Tank.

**Eric Tanenblatt** is the Global Chair of Public Policy and Regulation of Dentons and leads the firm's US Public Policy Practice. He is a renowned lecturer and political counselor, widely regarded as one of the nation's preeminent public policy thought leaders. He served in the administrations of three US presidents and as a senior advisor to a US senator and governor, and held a US Senate-confirmable post governing a federal agency. He has a passion for shepherding disruptive companies and industries through the complicated web of law and regulation, and often writes and speaks about the innovation economy. He leads Dentons' global autonomous vehicles team and authors a popular weekly digest tracking the most consequential regulatory, political, and technical developments in the world of automotive autonomy. Eric is a co-Chair of the Transportation & Mobility and the Governance and Regulation Pillars of the Dentons Smart Cities & Connected Communities Think Tank.

**Lauren Wilson** is a member of Dentons Federal Regulatory and Compliance practice, where she focuses on the communications and technology sectors. Lauren is a former legal advisor to the chief of the FCC's Consumer and Governmental Affairs Bureau, where she developed in-depth knowledge of robocalling, truth-in-billing and disability-related policies. Additionally, Lauren focused on media and telecom issues pertaining to Native American tribes, with an emphasis on universal service, broadband infrastructure deployment and facilitation of effective government-to-government consultation. She also served as a liaison from the FCC to industry leaders, consumer groups, disability groups and state and local governments. Lauren was recognized by Forbes as one of its "30 Under 30:Top Young Lawyers, Policymakers, and Power Players." Lauren is a member of the Telecommunications Pillar of the Dentons Smart Cities & Connected Communities Think Tank.

**Crawford Schneider** is an associate managing director in Dentons' Public Policy and Regulation practice focusing on matters involving state and local government affairs, including legislative/regulatory research and drafting, land use and zoning, economic development, public-private partnerships, public policy surrounding disruptive transportation, and international trade and investment. Crawford works closely with Dentons' global Autonomous Vehicles group and with the firm's Global Trade and Investment Platform, a tool designed for economic development organizations to facilitate foreign direct investment and trade. He also serves on the Editorial Board of Dentons' Smart Cities & Connected Communities Think Tank.