



Government Policies for 5G in the United States of America



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Note: The views expressed in this presentation are those of the author and may not necessarily represent the views of the Federal Communications Commission

Federal Communications Commission (FCC)

Mission

The FCC was established by the Communications Act of 1934 and is charged with regulating interstate and international communications by radio, television, wire, satellite and cable. The FCC's jurisdiction covers the 50 states, the District of Columbia, and U.S. possessions.



Commissioner Jessica Rosenworcel, Commissioner Michael O'Rielly, Chairman Ajit Pai and Commissioner Brendan Carr. *June 7, 2018*

Staff & Offices

- Staff of Approx. 1450 Attorneys, Economists, Engineers, et al
- HQ at 445 12th St, SW, Wash., DC
- Lab in Columbia, MD
- Field Offices



www.fcc.gov

FCC Jurisdiction on Spectrum

- FCC manages non-federal spectrum
- National Telecommunications & Information Administration (NTIA) manages federal spectrum
 - Advised by Interdepartmental Radio Advisory Committee (IRAC)
 - Federal Agencies participate in IRAC: FAA, DoT, DoD, NASA, DoE, State Dept., etc.
- Most spectrum is shared between federal and non-federal use
- FCC works closely with federal agencies



FCC FAST Plan

- FCC is pursuing a comprehensive strategy to Facilitate 5G Technology (the 5G FAST Plan)
- The Chairman's strategy includes three key components:
 - (1) pushing more spectrum into the marketplace
 - (2) updating infrastructure policy
 - (3) modernizing outdated regulations



"Forward-thinking spectrum policy, modern infrastructure policy, and market-based network regulation form the heart of our strategy for realizing the promise of the 5G future." - FCC Chairman Pai

Spectrum

- *High-band:* Auctioning high-band, millimeter-wave spectrum a priority: auctions this year in the [28 GHz and 24 GHz](#) bands; [37 GHz, 39 GHz, and 47 GHz](#) bands in 2019 - nearly 5 GHz for 5G. And working to free up another 2.75 gigahertz of 5G spectrum in the [26 and 42 GHz](#) bands.
- *Mid-band:* With work on the [2.5 GHz, 3.5 GHz](#), and [3.7-4.2 GHz](#) bands, could make up to 844 megahertz available for 5G deployments.
- *Low-band:* Acting to improve use of low-band spectrum for 5G services, with targeted changes to the [600 MHz](#), [800 MHz](#), and [900 MHz](#) bands.
- *Unlicensed:* New opportunities for Wi-Fi in the [6 GHz](#) and [above 95 GHz](#) bands.

Infrastructure

- [*Speeding Up Federal Review of Small Cells*](#): Adopted new rules to reduce federal regulatory impediments to deploying the small-cell infrastructure needed for 5G
- [*Speeding Up State and Local Review of Small Cells*](#): Reformed rules designed decades ago to accommodate small cells. Give states and localities a reasonable deadline to approve or disapprove small-cell siting applications.
- The **Broadband Deployment Advisory Committee**, provides advice and recommendations for the Commission on how to accelerate the deployment of high-speed Internet access. [See the latest BDAC news.](#)

Modernizing Outdated Regulations

- [Restoring Internet Freedom](#): The FCC adopted the *Restoring Internet Freedom Order*, which sets a consistent national policy for Internet providers.
- [One-Touch Make-Ready](#): Updated its rules governing the attachment of new network equipment to utility poles in order to reduce cost and speed up the process for 5G backhaul deployment.
- [Speeding the IP Transition](#): Revised rules to make it easier for companies to invest in next-generation networks and services instead of the fading networks of the past.
- [Business Data Services](#): In order to incentivize investment in modern fiber networks, the FCC updated rules for high-speed, dedicated services by lifting rate regulation where appropriate.
- [Supply Chain Integrity](#): Proposed to prevent use of Universal Service Funds to purchase equipment or services from companies that pose a national security threat to communications networks or the communications supply chain.

Congressional Action - Omnibus Appropriations Act

Public Law 115-141 (Enacted 3.23.2018)

AKA Ray Baum Act

(Repack Airwaves Yielding Better Access for Users of Modern Services Act of 2018)

- Contains numerous provisions for actions and reports by FCC, NTIA, et al re spectrum:
 - Identify at least 255 MHz of spectrum for mobile and fixed wireless BB use (100 MHz below 8 GHz for unlicensed use; 100 MHz below 6 GHz for flexible licensed use; 55 MHz below 8 GHz for licensed/unlicensed or both use) by 12/31/2022
 - NTIA feasibility report on commercial wireless use in 3100 - 3550 MHz band by 3/23/20
 - FCC feasibility report on commercial wireless use in 3700-4200 MHz band by 9/23/19
 - Publish NPRM to authorize mobile or fixed use in 42-42.5 GHz band.
 - NTIA report on recommendations to incentivize Federal entities to give up or share spectrum
 - Collaborate w/ NTIA to conduct bidirectional sharing study by 9/23/19
 - Develop national plan by 9/23/19 to make add'l spectrum available for unlicensed or licensed use
 - Adopt rules to permit unlicensed use in guard bands (including duplex gaps)
 - Ensure FCC efforts related to unlicensed use policies are reasonable and in the public interest
- And many provisions on other topics

White House 5G Summit



<https://www.bing.com/videos/search?q=white+house+event+on+5g&view=detail&mid=6397258A14D9EA8FB0B06397258A14D9EA8FB0B0&FORM=VIRE>

PRESIDENTIAL MEMORANDA

Presidential Memorandum on Developing a Sustainable Spectrum Strategy for America's Future INFRASTRUCTURE & TECHNOLOGY

Issued on: October 25, 2018

- Within 180 days agencies report anticipated future spectrum requirements
- The Director of the Office of Science and Technology Policy (OSTP) shall report on emerging technologies and their expected impact on non-Federal spectrum demand
- The Director of OSTP shall report on recommendations for research and development priorities that advance spectrum access and efficiency
- Within 270 days submit a long-term National Spectrum Strategy that includes legislative, regulatory, or other policy recommendations
- The Chief Technology Officer and the Director of the National Economic Council, or their designees, shall co-chair a Spectrum Strategy Task Force

Thank You!