



**Congressional  
Research Service**

Informing the legislative debate since 1914

---

# The Federal Communications Commission: Selected Issues Under Consideration

July 21, 2022

**Congressional Research Service**

<https://crsreports.congress.gov>

R47192



# The Federal Communications Commission: Selected Issues Under Consideration

The Federal Communications Commission (FCC) is set to begin or complete proceedings on a range of policy topics of ongoing interest to Congress in 2022: broadband data and mapping; fifth-generation (5G) wireless technologies; net neutrality; the Quadrennial Media Ownership Review; broadband labels; robocall rules enforcement; and public safety. Issues highlighted in this report were selected because of the ongoing congressional interest as subjects of recent legislation and hearings.

The FCC is currently composed of two Democratic and two Republican commissioners, with Democratic appointee Jessica Rosenworcel serving as Chairwoman. President Joe Biden's nominee for the fifth commissioner, Gigi Sohn, awaits Senate confirmation. Due to the absence of a fifth commissioner who could potentially be a tie-breaking vote, some issues will likely not be considered at this time. For example, while Chairwoman Rosenworcel has supported reinstating the Commission's 2015 net neutrality rules, without a political majority, such action could be unlikely.

## Broadband Data and Mapping

The FCC's current nationwide broadband availability map has been criticized by some for poor data granularity and overstating availability. Pursuant to the Broadband Deployment Accuracy and Technological Availability Act (P.L. 116-130), the FCC changed how it collects and verifies broadband data to generate an improved map. Data collection concludes September 1, 2022; the FCC has not stated when a new map may be released.

## Fifth-Generation Wireless Technologies

The FCC is actively addressing 5G wireless equipment and services. It is allocating and auctioning radio spectrum for 5G service; enhancing spectrum coordination with the National Telecommunications and Information Administration; addressing potential spectrum interference issues, especially those that affect federal agency operations; and implementing national security measures to ensure the security of telecommunications networks, specifically targeting the use of Chinese equipment in domestic networks.

## Net Neutrality

Net neutrality, the policy that required internet service providers to offer equal and nondiscriminatory access to online content, was adopted by the FCC during the Obama Administration in 2015 and repealed by the FCC during the Trump Administration in 2017. The FCC may take up the issue again, possibly pending the confirmation of a fifth commissioner or another composition of FCC commissioners who could reach a majority vote.

## Quadrennial Media Ownership Review

The Telecommunications Act of 1996 (P.L. 104-104) requires the FCC to review its media ownership rules every four years and determine whether they "are necessary in the public interest as the result of competition." In December 2018, the FCC began its Quadrennial Review of media ownership rules, but paused proceedings after a legal challenge. The U.S. Supreme Court unanimously upheld the FCC's rules in June 2021, and the FCC restarted its review.

## Broadband Labels

In January 2022, the FCC adopted a rulemaking proceeding to create new broadband labels, which would require, among other things, that internet service providers display labels at the point of sale to disclose information about prices, introductory rates, data allowances, broadband speeds, and management practices. The goal of the updated labels is to "make sure consumers know what they're paying for" and "increase incentives for carriers to compete on price and service."

R47192

July 21, 2022

**Patricia Moloney Figliola,**  
**Coordinator**  
Specialist in Internet and  
Telecommunications  
Policy

**Jill C. Gallagher**  
Analyst in  
Telecommunications  
Policy

**Brian E. Humphreys**  
Analyst in Science and  
Technology Policy

**Colby Leigh Rachfal**  
Analyst in  
Telecommunications  
Policy

**Dana A. Scherer**  
Specialist in  
Telecommunications  
Policy

### **Robocall Rules Enforcement**

Robocalls are the top consumer complaint received by the FCC. In response to an FCC mandate, the telecommunications industry developed and has largely implemented a framework known as “STIR/SHAKEN” to enable carriers to identify and verify callers. This led to a decrease in robocalls originating domestically, but did not impact robocalls originating overseas that spoof U.S. phone numbers. The FCC has proposed rules to require “gateway” carriers, the point of entry for foreign calls into the United States, to implement STIR/SHAKEN.

### **Public Safety**

The FCC is currently involved in three major public safety initiatives: the 9-8-8 Suicide Prevention Line that is launched on July 16, 2022; improving the accuracy and reliability of nationwide wireless emergency alerts to cell phones; and improving the geolocation of 9-1-1 calls.

## Contents

Introduction .....	1
Broadband Data and Mapping.....	2
Fifth-Generation Wireless Technologies .....	3
5G Rural Fund.....	3
FCC Spectrum Authority.....	4
Spectrum Auctions .....	5
Interference with Existing Technologies and Systems.....	7
Spectrum Coordination .....	8
National Security Initiatives.....	9
Secure and Trusted Communications Network Reimbursement Program.....	9
Committee for the Assessment of Foreign Participation in the U.S. Telecommunications Services Sector .....	10
Identifying Equipment that Poses a Threat to U.S. National Security .....	12
Net Neutrality.....	13
Quadrennial Media Ownership Review .....	14
Broadband Labels.....	16
Robocall Rules Enforcement.....	17
Public Safety.....	18

## Tables

Table 1. Status of FCC 5G FAST Plan Auctions .....	5
Table 2. FCC-NTIA Spectrum Coordination Initiative .....	8

## Contacts

Author Information.....	19
-------------------------	----

## Introduction

The Federal Communications Commission (FCC or “Commission”) conducts many rulemaking proceedings in any given year.<sup>1</sup> These proceedings exercise the Commission’s congressionally delegated authority to provide specific policy directives to the industries under its purview. Additionally, the FCC conducts spectrum auctions as authorized by Congress.<sup>2</sup>

The FCC is currently composed of two Democratic and two Republican commissioners, with Democrat Jessica Rosenworcel serving as Chairwoman. President Joe Biden’s nominee for the fifth commissioner, Gigi Sohn, submitted for Senate confirmation, remains pending in the Senate. Due to the potential absence of a majority, some issues may not be taken up by the currently seated commissioners. For example, while Chairwoman Rosenworcel has long supported reinstating the Commission’s 2015 net neutrality rules, without a political majority such action could be unlikely.

This report provides a summary of selected issues before the Commission that may also be of interest to Congress:

- broadband data and mapping;
- fifth-generation wireless technologies, including spectrum auctions, FCC spectrum authority, interference with existing technologies and systems, spectrum coordination, national security initiatives, and the Secure and Trusted Communications Network Reimbursement Program;
- net neutrality;
- the FCC’s Quadrennial Media Ownership Review;
- broadband labels;
- robocall rules enforcement; and
- public safety.

These issues were selected because they have been of ongoing interest to Congress as subjects of recent legislation or hearings.

---

<sup>1</sup> For information about the federal agency rulemaking process, see CRS In Focus IF10003, *An Overview of Federal Regulations and the Rulemaking Process*, by Maeve P. Carey, and CRS Report RL32240, *The Federal Rulemaking Process: An Overview*, coordinated by Maeve P. Carey. For information specific to FCC rulemaking, see Federal Communications Commission, *Rulemaking Process*, <https://www.fcc.gov/about-fcc/rulemaking-process>.

<sup>2</sup> In 1993 Congress passed the Omnibus Budget Reconciliation Act, which gave the Commission authority to use competitive bidding to choose from among two or more mutually exclusive applications for an initial license. Prior to this legislation, the Commission mainly relied upon comparative hearings and lotteries to select a single licensee from a pool of mutually exclusive applicants for a license. The Commission has found that spectrum auctions more effectively assign licenses than either comparative hearings or lotteries. The auction approach is intended to award the licenses to those who will use them most effectively. Additionally, by using auctions, the Commission has reduced the average time from initial application to license grant to less than one year, and the public is now receiving the direct financial benefit from the award of licenses. In the Balanced Budget Act of 1997, Congress extended and expanded the FCC’s auction authority. The act requires the FCC to use auctions to resolve mutually exclusive applications for initial licenses unless certain exemptions apply, including exemptions for public safety radio services, digital television licenses to replace analog licenses, and non-commercial educational and public broadcast stations. See Federal Communications Commission, “About Auctions,” at <https://www.fcc.gov/auctions/about-auctions>.

## Broadband Data and Mapping

Broadband availability data and mapping are important to some policymakers in determining where to target resources to help close the digital divide.<sup>3</sup> Since 2018, the FCC has had the primary responsibility for developing a comprehensive map of broadband access in the United States.<sup>4</sup> However, some say the current broadband deployment map may overstate availability of broadband in the United States.<sup>5</sup> For example, the FCC counts a census block as completely served if at least one home or business in it has broadband; the FCC relies on self-reported data from broadband providers; and the FCC lacks validation and challenge processes. In response to such concerns, Congress enacted the Broadband Deployment Accuracy and Technological Availability Act (Broadband DATA Act; P.L. 116-130) on March 23, 2020, to require the FCC to change the way it collects, verifies, and reports broadband data. Pursuant to the act, the FCC is to create new, more granular broadband availability maps.

Although the Broadband DATA Act did not specify a deadline for the new maps and the FCC has not provided a specific release date, the agency is making progress in developing its capability to generate the required broadband deployment maps. For example, the FCC announced on June 23, 2022, that the “Broadband Serviceable Location Fabric”<sup>6</sup> that will be used for the inaugural Broadband Data Collection (BDC) is available for broadband service providers and governmental entities to access.<sup>7</sup>

The BDC is designed to be an ongoing effort.<sup>8</sup> As it unfolds, Congress may take an interest in observing:

- what impact a delay in map release has on the distribution of federal funding that relies on its publication (e.g., the Broadband Equity, Access, and Deployment program created within the Infrastructure Investment and Jobs Act (P.L. 117-58)) and the effect that may have on addressing the digital divide,
- whether the BDC effort appears sufficient to alleviate the current broadband mapping issues, and

---

<sup>3</sup> The digital divide has been used to characterize a gap between those Americans who have access to telecommunications and information technologies and those who do not.

<sup>4</sup> Providers are required to submit to the FCC a list of all census blocks where they provide, or could provide, fixed broadband service to at least one location (e.g., household or business).

<sup>5</sup> Latest public release data as of December 2020. See Federal Communications Commission, *Fixed Broadband Deployment*, [https://broadbandmap.fcc.gov/#/location-summary?version=dec2020&tech=acfosw&speed=25\\_3](https://broadbandmap.fcc.gov/#/location-summary?version=dec2020&tech=acfosw&speed=25_3).

<sup>6</sup> According to the FCC, “The Broadband Serviceable Location Fabric (Fabric) is a dataset including locations in the United States and Territories where fixed broadband internet access service has been or could be installed. The Fabric allows broadband data filers and the FCC to work from a standardized list of locations. Filers of fixed broadband availability data in the Broadband Data Collection (BDC) should use the Fabric as the basis for developing their availability data.” Federal Communications Commission, *What Is the Location Fabric (and the Preliminary Location Fabric)?*, Broadband Data Collection Help Center, June 21, 2022, <https://help.bdc.fcc.gov/hc/en-us/articles/5375384069659-What-is-the-Location-Fabric-and-the-Preliminary-Location-Fabric->.

<sup>7</sup> Federal Communications Commission, *Broadband Data Task Force Announces the Availability of the Production Version of the Broadband Serviceable Location Fabric*, June 23, 2022, p.1, <https://docs.fcc.gov/public/attachments/DA-22-668A1.pdf>.

<sup>8</sup> Per FCC rules, “providers have a continuing duty to submit BDC filings each year on or before March 1 (reporting data as of December 31 of the prior year) and September 1 (reporting data as of June 30 of the current year).” See Federal Communications Commission, *All Facilities-Based Broadband Internet Access Service Providers Must Timely File Complete and Accurate Data in the Broadband Data Collection*, June 15, 2022, p.1, <https://docs.fcc.gov/public/attachments/DA-22-639A1.pdf>.

- whether further legislative action should add other variables into the data collection and mapping efforts (e.g., affordability data).

**CRS Analyst Contact:**

Colby Leigh Rachfal, Analyst in Telecommunications Policy

**For further reading:**

CRS Report R45962, *Broadband Data and Mapping: Background and Issues for the 117th Congress*, by Colby Leigh Rachfal.

CRS Report R46967, *The Infrastructure Investment and Jobs Act (P.L. 117-58): Summary of the Broadband Provisions in Division F*, coordinated by Patricia Moloney Figliola.

## **Fifth-Generation Wireless Technologies**

Fifth-generation (5G) wireless technologies were developed by the global telecommunications industry to accommodate increasing demands for mobile data from consumers and businesses—5G provides faster data rates with lower latency (i.e., less lag time). The industry designed this next generation of technologies to enhance the capacity of existing networks, handle more users and more data-intensive applications (e.g., video streaming, augmented reality applications), and improve the efficiency of mobile networks. Private companies are currently deploying 5G networks, and developing new devices, services, and applications.

Congress has generally supported the rollout of 5G networks. It recognizes the potential of 5G technologies to provide a platform for U.S. developers to launch new products and services—products that can be marketed globally; generate new jobs and revenues; and assert U.S. leadership in the global telecommunications market.

The FCC supports the deployment of 5G networks and technologies by allocating spectrum for 5G, conducting spectrum auctions for 5G, mitigating interference issues while also addressing national security concerns, and ensuring 5G reaches rural regions. The 117<sup>th</sup> Congress has focused on several issues related to 5G: the expiration of FCC’s auction authority in September 2022; improving spectrum coordination between the FCC and the National Telecommunications and Information Administration (NTIA), an agency in the U.S. Department of Commerce that manages federal agency spectrum use; addressing claims that 5G technologies are causing signal interference with existing spectrum users, including federal agency users; and addressing national security concerns.

## **5G Rural Fund**

Telecommunication providers are required to contribute a percentage of their revenue to the Universal Service Fund (USF), a fund intended to ensure that telecommunications services, including broadband, are available and affordable throughout the country. The USF is managed by the FCC and administered by the Universal Service Administrative Company (USAC).

In October 2020, the FCC created the 5G Fund for Rural America, designating \$8 billion from USF to bring broadband services to areas unlikely to see unsubsidized deployment of 5G technologies, and \$1 billion for precision agriculture projects. In its October 2020 rules, the FCC determined that the current data used to show broadband coverage (Form 477) was flawed, and decided to use data collected pursuant to the Broadband DATA Act (P.L. 116-130). While the FCC expects the data to more accurately show existing coverage and areas in need of coverage,

the FCC reported that waiting for the maps could add 18-24 months to the launch of the 5G Rural Fund.<sup>9</sup> Chairwoman Rosenworcel testified in March 2022 that she expects the maps to be complete in fall 2022,<sup>10</sup> which would enable the FCC to begin the award process.

**Primary CRS Analyst Contacts:**

Jill C. Gallagher, Analyst in Telecommunications Policy

**For further reading:**

CRS Insight IN11661, *5G Fund for Rural America*, by Jill C. Gallagher.

## **FCC Spectrum Authority**

The FCC manages spectrum for nonfederal use (i.e., commercial; state and local government). Through various authorities, dating back to 1993, Congress has authorized the FCC to auction spectrum for commercial use.<sup>11</sup> That authority is set to expire on September 30, 2022, unless Congress acts. Expiration of FCC auction authority could affect the Commission’s ability to complete the 2.5 GHz auction and hold future auctions.

In general, Congress has supported FCC auction authorities, and has extended FCC auction authorities on several occasions to allow the FCC to auction certain bands.<sup>12</sup> In March 2022, some House Members introduced legislation (H.R. 7783) that would extend the FCC’s auction authority through March 31, 2024. At a May 2022 hearing, some House Members expressed urgency for its passage.<sup>13</sup>

In addition, some Members of Congress asked the FCC for recommendations on spectrum auction authorities and other tools to facilitate spectrum allocation for commercial services.<sup>14</sup> The FCC Chair provided several options, including interagency coordination to facilitate spectrum planning and identification of bands that it could reallocate for commercial use; interagency coordination to expedite the identification and reallocation process, and reduce spectrum disputes;

---

<sup>9</sup> FCC, “5G Fund,” November 24, 2020, <https://www.fcc.gov/5g-fund>.

<sup>10</sup> U.S. Congress, House Committee on Energy and Commerce, Subcommittee on Communications and Technology, “Connecting America: Oversight of the FCC,” 117<sup>th</sup> Cong., 2<sup>nd</sup> sess., March 31, 2022.

<sup>11</sup> CRS Report R44433, *Framing Spectrum Policy: Legislative Initiatives*, by Linda K. Moore.

<sup>12</sup> U.S. Congress, House Committee on Energy and Commerce, Subcommittee on Communications and Technology, *Strengthening Our Communications Networks: Legislation to Connect and Protect*, 117<sup>th</sup> Cong., 2<sup>nd</sup> sess., May 24, 2022. (See Memorandum to Subcommittee on Communications and Technology Members and Staff, from Committee on Energy and Commerce Staff, regarding “Hearing on “Strengthening our Communications Networks: Legislation to Connect and Protect,” May 20, 2022, p. 2, [https://energycommerce.house.gov/sites/democrats.energycommerce.house.gov/files/documents/Briefing%20Memo\\_CAT\\_2022.05.24.pdf](https://energycommerce.house.gov/sites/democrats.energycommerce.house.gov/files/documents/Briefing%20Memo_CAT_2022.05.24.pdf).)

<sup>13</sup> U.S. Congress, House Committee on Energy and Commerce, Subcommittee on Communications and Technology, *Strengthening Our Communications Networks: Legislation to Connect and Protect*, 117<sup>th</sup> Cong., 2<sup>nd</sup> sess., May 24, 2022, <https://energycommerce.house.gov/committee-activity/hearings/hearing-on-strengthening-our-communications-networks-legislation-to>. (See Opening Statements from Chairman Pallone and Representative Matsui.)

<sup>14</sup> Letter from Roger F. Wicker, U.S. Senate, Committee on Commerce, Science, and Transportation, Ranking Member, and John Thune, U.S. Senate, Committee on Commerce, Science and Transportation, Subcommittee on Communications Media, and Broadband, Ranking Member, to Jessica Rosenworcel, Federal Communications Commission Chair, March 2, 2022, <https://www.fcc.gov/chairwoman-rosenworcel-letters-congress>. Letter from Frank Pallone, Jr., U.S. House of Representatives, Energy and Commerce Committee, Chairman, Cathy McMorris Rodgers, U.S. House of Representatives, Energy and Commerce Committee, Ranking Member, and Mike Doyle, U.S. House of Representatives, Energy and Commerce Committee, Subcommittee on Communications and Technology, Chairman, et al., to Jessica Rosenworcel, Federal Communications Commission, Chair, March 22, 2022, <https://www.fcc.gov/chairwoman-rosenworcel-letters-congress>.



incentives for federal and commercial users to relinquish spectrum; upgrades to equipment; and development of spectrum sharing mechanisms and technologies to achieve greater spectrum efficiencies.<sup>15</sup>

Bills have been introduced in Congress in line with some of these recommendations. For example, H.R. 2501, the Spectrum Coordination Act, and its companion bill in the Senate (S. 1472) would require the NTIA and FCC to update their existing Memorandum of Understanding (MOU) on spectrum allocations and use, and improve interagency processes for identifying and reallocating spectrum for commercial use. As another example, H.R. 5486, the SMART Act, would require NTIA to implement a standardized framework to facilitate sharing of spectrum between federal and nonfederal users while managing harmful interference. Thus, in addition to extending the FCC’s spectrum auction authority, Congress is considering policies to enhance interagency coordination on spectrum reallocation and use.

**CRS Analyst Contact:**

Jill C. Gallagher, Analyst in Telecommunications Policy

**Spectrum Auctions**

In September 2018, the FCC released the 5G FAST Plan, which identified several large spectrum bands for 5G services.<sup>16</sup> Starting in 2019, the FCC began auctioning spectrum for 5G. Most of the auctions are completed. The 2.5 gigahertz (GHz) auction is to begin in July 2022. **Table 1** describes the status of all FCC 5G FAST Plan auctions.

**Table 1. Status of FCC 5G FAST Plan Auctions**

<b>Low Band</b>	600 MHz was auctioned in April 2017 and made 84 megahertz (MHz) of low-band spectrum available for wireless use. This auction yielded \$19.8 billion in revenue: \$10 billion went to broadcasters for giving up their spectrum, \$7 billion went to deficit reduction, and \$1.75 billion went to repacked broadcasters for relocation costs. In July 2020, the FCC reported that 99% of the spectrum previously used by broadcasters had been cleared, to make way for commercial wireless use.
<b>Mid Band</b>	In July 2019, the FCC eliminated eligibility restrictions on Educational Broadband Service (EBS) licenses (2.5 GHz), removing requirements that licensees be educational institutions; created a priority window for tribal entities; and decided to auction any remaining spectrum for commercial wireless use. The FCC began taking its first steps towards an auction in 2022.
	In October 2021, the FCC opened the spectrum auction for the 3.45 GHz to 3.55 GHz band. The FCC closed the auction in January 22, 2022. The auction generated about \$22 billion and resulted in the award of over 4,000 licenses to 23 providers.
	The Citizens Broadband Radio Service 3.5 GHz auction closed in August 2020, yielding \$4.5 billion in revenue. This auction offered the greatest number of licenses in the FCC’s auction history.
	In February 2020, the FCC made 280 MHz of C-band (3.7 GHz–4.2 GHz) available for 5G. The FCC auctioned the spectrum in 100 MHz blocks. This auction began on December 8, 2020, and concluded in January 2021, raising \$81 billion, the highest grossing spectrum auction ever.

<sup>15</sup> Letter from Jessica Rosenworcel, Federal Communications Commission, Chair, to Senator John Thune, Committee on Commerce, Science, and Transportation, Subcommittee on Communications, Media, and Broadband, Ranking Member, March 30, 2022, <https://www.fcc.gov/chairwoman-rosenworcel-letters-congress>.

<sup>16</sup> FCC, “5G FAST Plan,” September 28, 2018, <https://www.fcc.gov/document/fccs-5g-fast-plan>.

<b>High Band</b>	The 28 GHz auction closed January 2019. This auction yielded \$700 million in revenue.
	The 24 GHz auction closed April 2019. This auction yielded \$2 billion in revenue.
	The 37 GHz, 39 GHz, and 47 GHz auction closed March 2020. This auction yielded \$7.5 billion in revenue.

**Source:** Federal Communications Commission (FCC), “Auctions,” <https://www.fcc.gov/auctions>.

**Notes:** This does not include all FCC auctions, only those associated with the 5G FAST Plan.

“Repacking” involves reorganizing television stations in the broadcast television bands so the stations remaining on the air occupy a smaller portion of the Ultra High Frequency (UHF) band, thereby freeing up a portion of that band for new wireless services use. See <http://www.fcc.gov/about-fcc/fcc-initiatives/incentive-auctions/how-it-works> for additional information.

In addition to spectrum for 5G, the FCC is also managing other spectrum initiatives. For example, the MOBILE NOW Act of 2018 (P.L. 115-141), enacted March 23, 2018, requires the NTIA and FCC to identify 255 MHz of federal and nonfederal spectrum for mobile and fixed wireless broadband use by December 31, 2022.<sup>17</sup> The act requires the agencies to identify spectrum bands for sharing or reallocation, and conduct studies on repurposing other bands for commercial use. The NTIA is to report on spectrum repurposing efforts annually.<sup>18</sup>

Pursuant to the act, the FCC and NTIA are currently examining the 3100 MHz to 3450 MHz band—a band used by the Department of Defense (DOD) for national defense purposes—for commercial or shared use.<sup>19</sup> DOD has sought comment on dynamic spectrum sharing mechanisms and technologies that would allow shared use in DOD frequency bands.<sup>20</sup>

An issue that Congress may consider is how to weigh the urgency to allocate spectrum for 5G against the need to protect mission-essential federal agency use. Some in Congress have sought to expedite the reallocation of the 3100 MHz to 3450 MHz band. Introduced in April 2022, companion bills H.R. 7624 and S. 4117, the Spectrum Innovation Act of 2022, would provide funding for agencies to make additional frequencies in the 3100 MHz to 3450 MHz band available. While there is general interest among stakeholders to enable sharing and to develop dynamic spectrum sharing technologies, some wireless industry experts say sharing will be difficult given the number of DOD systems in the band, and given that the advanced dynamic spectrum-sharing technologies DOD is seeking are still under development.<sup>21</sup>

**Primary CRS Analyst Contacts:**

Jill C. Gallagher, Analyst in Telecommunications Policy (FCC), and Ling Zhu, Analyst in Telecommunications Policy (NTIA)

<sup>17</sup> Consolidated Appropriations Act, 2018 (P.L. 115-141, Division P, Title VI, Section 603).

<sup>18</sup> U.S. Department of Commerce, *Second Annual Report on the Status of Spectrum Repurposing*, December 2020, [https://www.ntia.doc.gov/files/ntia/publications/second\\_annual\\_ntia\\_spectrum\\_repurposing\\_report.pdf](https://www.ntia.doc.gov/files/ntia/publications/second_annual_ntia_spectrum_repurposing_report.pdf).

<sup>19</sup> U.S. Department of Commerce, *Feasibility of Commercial Wireless Services Sharing with Federal Operations in the 3100-3550 MHz Band*, July 2020, [https://www.ntia.doc.gov/files/ntia/publications/ntia\\_3100-3550\\_mhz\\_mobile\\_now\\_report\\_to\\_congress.pdf](https://www.ntia.doc.gov/files/ntia/publications/ntia_3100-3550_mhz_mobile_now_report_to_congress.pdf); and Peter Rysavy, “No Magic Spectrum Sharing Solutions,” *Fierce Wireless*, April 26, 2021, <https://www.fiercewireless.com/regulatory/no-magic-spectrum-sharing-solutions-rysavy>.

<sup>20</sup> U.S. Department of Defense, “DOD Seeks Industry Input into Dynamic Spectrum Sharing,” press release, September 18, 2020, <https://www.defense.gov/News/Releases/Release/Article/2353932/dod-seeks-industry-input-into-dynamic-spectrum-sharing/>.

<sup>21</sup> Peter Rysavy, “No Magic Spectrum Sharing Solutions,” *Fierce Wireless*, April 26, 2021, <https://www.fiercewireless.com/regulatory/no-magic-spectrum-sharing-solutions-rysavy>.

**For further reading:**

CRS Report R45485, *Fifth-Generation (5G) Telecommunications Technologies: Issues for Congress*, by Jill C. Gallagher and Michael E. DeVine.

## **Interference with Existing Technologies and Systems**

Some existing spectrum users, including federal agencies performing mission-critical functions, have raised concerns that new uses of reallocated spectrum, such as for 5G, could interfere with existing users in adjacent or nearby bands. Four recent examples highlight federal agency interference concerns with FCC reallocation of spectrum:

- the National Oceanic and Atmospheric Administration (NOAA) raised concerns in 2019 that 5G services in the 24 GHz band could cause harmful interference to passive sensors on weather satellites;<sup>22</sup>
- DOD had concerns in 2020 that a terrestrial telecommunications network in the 1-2 GHz frequency range would interfere with GPS signals and services;
- the Department of Transportation objected in 2020 to the FCC’s decision to reallocate some spectrum in the 5.9 GHz band reserved for vehicle safety technologies for unlicensed use;<sup>23</sup> and
- the Federal Aviation Administration had concerns in 2022 about 5G base stations deployed near airports operating in the C-band (3.7-3.98 GHz) interfering with radio altimeters—navigational equipment on aircraft (4.2-4.4 GHz).<sup>24</sup>

Some Members in Congress have proposed legislation to improve spectrum planning and coordination between the FCC and NTIA (representing federal agency spectrum interests), to accommodate new technologies, protect federal interests, and mitigate interference. For example, the SMART Act, H.R. 4586, would create a sharing regime between federal and nonfederal users, while also managing harmful interference. Another bill, H.R. 4990, the ITS Codification Act, would codify the Institute for Telecommunication Sciences within NTIA, to support its telecommunications research work, including spectrum sharing and interference research. As demand for spectrum increases, spectrum disputes may increase as well. Thus, Congress may consider further action to encourage FCC and NTIA coordination and funding spectrum sharing and interference mitigation research to enable efficient spectrum access and use.

**Primary CRS Analyst Contacts:**

Jill C. Gallagher, Analyst in Telecommunications Policy (FCC), and Ling Zhu, Analyst in Telecommunications Policy (NTIA)

---

<sup>22</sup> Jon Brodtkin, “5G Likely to Mess with Weather Forecasts, but FCC Auctions Spectrum Anyway: FCC Auctions 24GHz Spectrum Despite Likely Interference with Weather Satellites,” *ArsTechnica*, May 14, 2019, <https://arstechnica.com/tech-policy/2019/05/5g-networks-will-likely-interfere-with-us-weather-satellites-navy-warns/>.

<sup>23</sup> Letter from Steven G. Bradbury, U.S. Department of Transportation, General Counsel, to Douglas Kinkoph, Associate Administrator, National Telecommunications and Information Administration, March 9, 2020, p. 4, <https://transportation.house.gov/news/press-releases/tandi-committee-leaders-criticize-final-fcc-vote-to-reallocate-part-of-59-ghz-spectrum-band>.

<sup>24</sup> CRS In Focus IF12028, *Aviation Concerns Regarding the Rollout of 5G Wireless Telecommunications Networks*, by Bart Elias.

**For further reading:**

CRS In Focus IF12046, *National Spectrum Policy: Interference Issues in the 5G Context*, by Ling Zhu.

CRS In Focus IF11558, *Spectrum Interference Issues: Ligado, the L-Band, and GPS*, by Jill C. Gallagher, Alyssa K. King, and Clare Y. Cho.

CRS In Focus IF12028, *Aviation Concerns Regarding the Rollout of 5G Wireless Telecommunications Networks*, by Bart Elias.

**Spectrum Coordination**

Over 90% of U.S. radio spectrum is shared in some capacity between federal and nonfederal users. By law, the FCC, which manages nonfederal spectrum use, and NTIA, which manages federal spectrum use, are required to coordinate spectrum allocations, meet regularly, and conduct joint spectrum planning.<sup>25</sup> The agencies maintain an MOU setting the terms of this coordination. The purpose of the MOU is to ensure federal and commercial users have access to spectrum, coordinate allocation, avoid harmful interference, and resolve technical, procedural, and policy differences between the agencies.<sup>26</sup>

Experts serving on the Commerce Spectrum Management Advisory Committee (CSMAC) have raised concern that the MOU has not been updated to improve and ensure effective coordination between the two agencies.<sup>27</sup> In the 117<sup>th</sup> Congress, legislation (e.g., S. 1472 and H.R. 2501) has been introduced to try to address such concerns. S. 1472, the Improving Spectrum Coordination Act of 2021, would require the FCC and NTIA to update their MOU periodically and report to Congress annually on joint spectrum planning activities. H.R. 2501, the Spectrum Coordination Act, would also require the two agencies to update the MOU to “improve the process for resolving frequency allocation disputes in shared or adjacent bands ... expeditiously and efficiently.”

On February 15, 2022, the FCC and NTIA announced that they had established a formal spectrum coordination initiative. The initial actions the two agencies committed to are detailed in **Table 2**.

**Table 2. FCC-NTIA Spectrum Coordination Initiative**

Reaffirm Roles and Responsibilities	Building on NTIA’s statutory role as manager of the federal government’s use of spectrum, the FCC and NTIA will update the 2003 MOU between the agencies to address gaps in government coordination and better reflect today’s spectrum opportunities and challenges.
Reinstate High Level Meetings	The FCC Chair and NTIA Administrator will hold formal, regular meetings, beginning monthly, to conduct joint spectrum planning. This will exceed the existing statutory requirement, as well as the existing MOU between the agencies, which provides that the FCC Chair and NTIA Administrator meet twice each calendar year.
Renew Efforts to Develop a National Spectrum Strategy	The FCC and NTIA will collaborate to help inform the development of a national spectrum strategy, increase transparency around spectrum use and needs, and establish long-term spectrum planning and coordination.

<sup>25</sup> 47 U.S.C. §922.

<sup>26</sup> CRS Report R47075, *The National Telecommunications and Information Administration (NTIA): Current Roles and Programs*, by Ling Zhu.

<sup>27</sup> U.S. Government Accountability Office, *NTIA Should Improve Spectrum Reallocation Planning and Assess Its Workforce*, GAO-22-104537, January 27, 2022, p. 25, <https://www.gao.gov/assets/gao-22-104537.pdf>.

Recommit to Scientific Integrity and Evidence-Based Policymaking	The FCC and NTIA will work cooperatively to develop processes for spectrum engineering compatibility analysis. This will include a compilation of principles, guidelines, accepted technical standards, interference protection criteria, propagation models, and other characteristics.
Revamp Technical Collaboration	The FCC and NTIA will foster proactive technical exchange and engagement with industry and other federal agencies by participating in cross-agency advisory groups. To start, the FCC will participate as an observer in the Commerce Spectrum Management Advisory Committee, and NTIA will participate as an observer in the FCC's Technological Advisory Council and the Communications Security, Reliability, and Interoperability Council.

**Source:** National Telecommunications and Information Administration, “New Actions by Chairwoman and Assistant Secretary Advance U.S. Spectrum Policymaking Through Updated Procedures, Closer Coordination, and Information Sharing,” February 15, 2022, <https://www.ntia.doc.gov/press-release/2022/fcc-ntia-establish-spectrum-coordination-initiative>.

Congress may consider whether the current interagency process is adequate for identifying potential harmful interference and resolving differences. Options could include mandating terms of coordination between FCC and NTIA (H.R. 2501), establishing a third-party review process to resolve spectrum disputes (similar to that formed in the FY2021 National Defense Authorization Act (P.L. 116-283), section 1662), or allowing the agencies to pursue a cooperative approach toward spectrum management, coordination, and dispute resolution.

**CRS Analyst Contacts:**

Ling Zhu, Analyst in Telecommunications Policy, and Jill C. Gallagher, Analyst in Telecommunications Policy (FCC)

## National Security Initiatives

The FCC is implementing several new national security initiatives, related to the Secure and Trusted Communications Networks Reimbursement Program, the Committee for the Assessment of Foreign Participation in the U.S. Telecommunications Services Sector (formerly known as “Team Telecom”), and the identification of “covered equipment”—equipment that poses a threat to U.S. national security.

### Secure and Trusted Communications Network Reimbursement Program<sup>28</sup>

The FCC manages the Secure and Trusted Communications Network Reimbursement Program, which reimburses telecommunication providers who have agreed to remove equipment from Chinese equipment makers Huawei Technologies Co., Ltd., and ZTE Corporation and replace it with “trusted equipment.” Congress created this program and prioritized assistance to small and rural providers, and later expanded eligibility to some larger providers and educational institutions. Entities have one year from the announcement to complete the replacement. The FCC received nearly \$6 billion in requests for funding—about three times the \$1.9 billion appropriated by Congress in the Consolidated Appropriations Act (CAA), 2021 (P.L. 116-260).

On July 15, 2022, the FCC completed its review of applications filed for the Secure and Trusted Communications Network Reimbursement Program. Based on its review, it estimates that small providers (those with 2 million or fewer customers) need \$4.7 billion to replace Huawei and ZTE equipment in their networks. With administrative costs, the FCC estimates that \$4.98 billion is

<sup>28</sup> CRS Insight IN11663, *Secure and Trusted Communications Networks Reimbursement Program: Frequently Asked Questions*, by Jill C. Gallagher.

needed, representing a shortfall of \$3.08 billion from the \$1.9 billion Congress appropriated for the program in the CAA, 2021. The FCC reported to Congress that it will distribute the \$1.9 billion in reimbursement funds equally to each applicant, covering about 40% of their expenses.<sup>29</sup> There have been proposals to increase funding for the Secure and Trusted Communications Network Reimbursement Program.

On July 13, 2022, the House Energy and Commerce Committee ordered to be favorably reported H.R. 7624, the Spectrum Innovation Act of 2022, as amended,<sup>30</sup> which would, among other things, authorize an additional \$3.4 billion for the Secure and Trusted Reimbursement Program. The legislation would authorize an auction of the 3.1 GHz to 3.45 GHz band to raise revenue for the additional reimbursement. An issue for Congress may be whether additional funding for the program would be necessary to ensure that network operators remove and replace Huawei and ZTE equipment.

### **Committee for the Assessment of Foreign Participation in the U.S. Telecommunications Services Sector**

Pursuant to Section 214 of the Communications Act of 1934, telecommunication providers seeking to provide service between the United States and a foreign nation must obtain a license from the FCC. The international Section 214 process seeks to ensure the U.S. market and networks are protected against potential anti-competitive behavior by a carrier with market power in a foreign country. The FCC may refer these applications for review by “Team Telecom,” a group of experts from U.S. national security agencies (e.g., Attorney General, Secretaries of Homeland Security and Defense), which has operated in some form since 1997.<sup>31</sup> Further, pursuant to Section 310 of the act, if a telecommunication provider seeking to do business in the United States has a 10% or greater direct or indirect foreign investment, the FCC also refers these applications for executive agency review. The FCC consults with Team Telecom to inform its licensing decisions, and to ensure its decisions are in the public interest.<sup>32</sup>

On April 4, 2020, President Trump issued Executive Order No. 13913,<sup>33</sup> which established the Committee for the Assessment of Foreign Participation in the United States Telecommunications Services Sector (“the Committee”).<sup>34</sup> E.O 13913 defines the membership of the Committee, retaining the existing executive branch agencies and members, and allows expansion of the committee to include any executive branch agency head and an assistant to the President, as the President may require. It further designates national security, foreign policy, trade policy, and economic agencies as “Advisors” to the committee,<sup>35</sup> which the DOJ asserts should help to ensure

---

<sup>29</sup> See FCC Chairwoman Rosenworcel’s July 15, 2022, Update to Senators Cantwell, Wicker, Leahy, Shelby and Reps. McMorris Rodgers, DeLauro, Granger, and Pallone, July 15, 2022, <https://www.fcc.gov/chairwoman-rosenworcel-letters-congress>.

<sup>30</sup> See U.S. House of Representatives, Committee on Energy and Commerce, markup of H.R. 7624, [https://energycommerce.house.gov/sites/democrats.energycommerce.house.gov/files/documents/H7624\\_CPT\\_xml.pdf](https://energycommerce.house.gov/sites/democrats.energycommerce.house.gov/files/documents/H7624_CPT_xml.pdf).

<sup>31</sup> FCC, *In the Matter of Foreign Participation in the U.S. Telecommunications Market, Report and Order and Order on Reconsideration* (IB Docket No. 97-142), November 25, 1997, p. 3, <https://www.fcc.gov/document/rules-and-policies-foreign-participation-us-telecommunications>.

<sup>32</sup> 47 U.S.C. §214(a) and §310(d).

<sup>33</sup> Executive Office of the President, “Establishing the Committee for the Assessment of Foreign Participation in the United States Telecommunications Services Sector,” 85 *Federal Register* 19643-19650, April 4, 2020.

<sup>34</sup> Previously known as “Team Telecom.”

<sup>35</sup> Advisors include the Secretary of State, the Secretary of the Treasury, the Secretary of Commerce, the Director of the Office of Management and Budget, the United States Trade Representative, the Director of National Intelligence, the

the Committee’s recommendations reflect a balanced and coordinated review from executive branch agencies.<sup>36</sup> The executive order identifies two license review processes that the Committee shall or may undertake:

- The Committee *shall* conduct a review of *new* license applications referred to it by the FCC.
- The Committee *may* conduct a review of *existing* license applications, with the majority vote of the committee; if it conducts such a review, it must notify the Advisors.

E.O. 13913 requires the Committee to make recommendations within 120 days, and no more than 210 days, and stipulates the types of recommendations the committee can make to the FCC in response to referred applications.<sup>37</sup>

In September 2020, the FCC adopted rules codifying its review process and referral of applications to the committee, to align with E.O. 13913.<sup>38</sup> In March 2021, the FCC proposed a set of standardized national security and law enforcement questions related to reportable foreign ownership that applicants would be required to answer as part of the application review process to facilitate and expedite FCC and executive branch review of applicant documents.<sup>39</sup> While the FCC formalized the application process, at least one FCC commissioner and some Members of Congress urged the FCC to examine existing licenses to protect U.S. national security.<sup>40</sup> In some cases, the FCC has taken action to review and revoke existing licenses. In 2021, the FCC revoked China Telecom Americas’ authorization to provide service within the United States.<sup>41</sup> In 2022, the

---

Administrator of General Services, the Assistant to the President for National Security Affairs, the Assistant to the President for Economic Policy, the Director of the Office of Science and Technology Policy, the Chair of the Council of Economic Advisers, and any other Assistant to the President as the President determines appropriate.

<sup>36</sup> DOJ, “The Committee for the Assessment of Foreign Participation in the United States Telecommunications Services Sector,” December 30, 2021, <https://www.justice.gov/nsd/committee-assessment-foreign-participation-united-states-telecommunications-services-sector-0>.

<sup>37</sup> DOJ, “The Committee for the Assessment of Foreign Participation in the United States Telecommunications Services Sector—Frequently Asked Questions,” updated December 7, 2021, <https://www.justice.gov/nsd/committee-assessment-foreign-participation-united-states-telecommunication-services-sector>.

<sup>38</sup> FCC, *In the Matter of Process Reform for Executive Branch Review of Certain FCC Applications and Petitions Involving Foreign Ownership* (IB Docket No. 16-155), September 30, 2020.

<sup>39</sup> FCC, “International Bureau Seeks Comment on Standard Questions for Applicants Whose Applications Will Be Referred to the Executive Branch for Review Due to Foreign Ownership,” 86 *Federal Register* 12312-12399, March 3, 2021.

<sup>40</sup> David Shepardson, “FCC Commissioner Calls for New Scrutiny of Undersea Data Cables,” *Reuters*, September 30, 2020, <https://www.reuters.com/article/us-usa-trade-china-telecommunications/fcc-commissioner-calls-for-new-scrutiny-of-undersea-data-cables-idUSKBN26L3NF>. See also U.S. Congress, Senate Committee on Homeland Security and Governmental Affairs, Permanent Subcommittee on Investigations, Staff Report, *Threats to U.S. Networks: Oversight of Chinese Government-Owned Carriers*, 116<sup>th</sup> Cong., 2<sup>nd</sup> sess., June 9, 2020, <https://www.hsgac.senate.gov/imo/media/doc/2020-06-09%20PSI%20Staff%20Report%20-%20Threats%20to%20U.S.%20Communications%20Networks.pdf>; and Senate Democrats, “Schumer, Cotton Request FCC Conduct Review of Prior FCC-Granted Licenses Authorizing Two Chinese Telecom Companies—Owned and Controlled by the Chinese Government—to Operate in the U.S. Senators’ Letter Follows FCC Recommendations of Rejection of China Mobile USA’s Application for Same Authorization on National Security Grounds,” press release, September 16, 2019, [https://www.democrats.senate.gov/newsroom/press-releases/schumer-cotton-request-fcc-conduct-review-of-prior-fcc-granted-licenses-authorizing-two-chinese-telecomm-companies\\_owned-and-controlled-by-the-chinese-government—to-operate-in-the-us-senators-letter-follows-fccs-recent-rejection-of-china-mobile-usas-application-for-same-authorization-on-national-security-grounds](https://www.democrats.senate.gov/newsroom/press-releases/schumer-cotton-request-fcc-conduct-review-of-prior-fcc-granted-licenses-authorizing-two-chinese-telecomm-companies_owned-and-controlled-by-the-chinese-government—to-operate-in-the-us-senators-letter-follows-fccs-recent-rejection-of-china-mobile-usas-application-for-same-authorization-on-national-security-grounds).

<sup>41</sup> Federal Communications Commission, “FCC Revokes and Terminates China Telecom America’s Authority to Provide Telecom Services in America,” press release, October 26, 2021, <https://www.fcc.gov/document/fcc-revokes->

FCC revoked the U.S. authorization of China Unicom to operate in the United States, citing national security concerns. The FCC ordered China Unicom to discontinue any domestic or international telecommunications services within the United States by April 4, 2022.<sup>42</sup>

In her statement on the 2022 decision, FCC Chairwoman Rosenworcel noted that the Commission relied on executive agency input and a 2020 report by the Senate Select Committee on Intelligence (SSCI) on threats from Chinese state-owned telecommunications providers operating in the United States.<sup>43</sup> In the 2020 report, the SSCI laid out other recommendations for improving national security, several of which the FCC has completed (e.g., formalize the review process, review existing license of China Telecom and China Unicom). The SSCI also recommended statutorily authorizing the committee created under E.O. 13913 and providing it with resources; defining roles for other executive branch agencies; coordinating review with the Committee on Foreign Investment in the United States; requiring the periodic review of national security agreements between the United States and foreign telecommunication providers; and taking steps to ensure U.S. companies have access to the Chinese telecommunications market. Congress may consider implementing the recommendations through legislation, or may allow the FCC to implement SSCI recommendations through rulemaking.

### **Identifying Equipment that Poses a Threat to U.S. National Security**

The FCC, by law, is required to publish a list of communication equipment and services that pose a risk to U.S. national security.<sup>44</sup> In addition, other federal agencies, such as the Departments of Commerce and Defense, are identifying entities that pose a risk to their missions and operations.<sup>45</sup> A potential challenge for agencies and Congress may be ensuring such lists are integrated and current.<sup>46</sup>

#### **Primary CRS Analyst Contacts:**

Jill C. Gallagher, Analyst in Telecommunications Policy (FCC), and Ling Zhu, Analyst in Telecommunications Policy (NTIA)

#### **For further reading:**

CRS Insight IN11663, *Secure and Trusted Communications Networks Reimbursement Program: Frequently Asked Questions*, by Jill C. Gallagher.

---

china-telecom-americas-telecom-services-authority.

<sup>42</sup> Federal Communications Commission, “China Unicom to Stop U.S. Services,” February 3, 2022, <https://www.fcc.gov/consumers/guides/china-unicom-stop-us-services>.

<sup>43</sup> Statement of Chairwoman Jessica Rosenworcel regarding China Unicom (Americas) Operations Limited, GN Docket No. 20-110, January 27, 2022, <https://www.fcc.gov/document/fcc-revokes-china-unicom-americas-telecom-services-authority/rosenworcel-statement>.

<sup>44</sup> P.L. 116-124.

<sup>45</sup> U.S. Department of Defense, “DOD Releases List of Chinese Military Companies in Accordance with Section 1260H of the National Defense Authorization Act for Fiscal Year 2021,” press release, June 3, 2021, <https://www.defense.gov/News/Releases/release/article/2645126/dod-releases-list-of-chinese-military-companies-in-accordance-with-section-1260/>; and U.S. Department of Commerce, “Commerce Department Further Restricts Huawei Access to U.S. Technology and Adds Another 38 Affiliates to the Entity List,” press release, June 3, 2021, <https://www.defense.gov/News/Releases/Release/article/2645126/dod-releases-list-of-chinese-military-companies-in-accordance-with-section-1260/>.

<sup>46</sup> CRS Report R47012, *U.S. Restrictions on Huawei Technologies: National Security, Foreign Policy, and Economic Interests*, by Jill C. Gallagher.



CRS In Focus IF11251, *National Security Implications of Fifth Generation (5G) Mobile Technologies*, by John R. Hoehn and Kelley M. Sayler.

CRS Report R47012, *U.S. Restrictions on Huawei Technologies: National Security, Foreign Policy, and Economic Interests*, by Jill C. Gallagher.

## Net Neutrality

Net neutrality is the principle that internet service providers (ISPs) must treat all internet communications equally, offering equal and nondiscriminatory access to online content regardless of device, application, or platform used and content consumed.<sup>47</sup> In a 2015 Order<sup>48</sup> promulgated during the Obama Administration, the FCC adopted rules imposing this principle on ISPs by classifying broadband internet access service (BIAS)<sup>49</sup> as a telecommunications service, regulated as a common carrier<sup>50</sup> service under Title II of the Communications Act (“Title II”). Prior to the 2015 Order, BIAS had been classified as an information service regulated under Title I of the Communications Act (“Title I”) and was largely exempt from Title II-type regulations. This new classification was one of the most controversial aspects of the 2015 Order. Various parties challenged the legality of the 2015 Order. The U.S. Court of Appeals for the District of Columbia, in 2016, voted to uphold all aspects of the 2015 Order.<sup>51</sup>

In a 2017 Order<sup>52</sup> promulgated under the Trump Administration, the FCC largely reversed the 2015 Order and returned BIAS to regulation under Title I. In the order, the FCC also transferred most consumer protection oversight of ISPs to the Federal Trade Commission, saying,

Other legal regimes—particularly antitrust law and the FTC’s authority under Section 5 of the FTC Act to prohibit unfair and deceptive practices—provide protection for consumers. These long-established and well-understood antitrust and consumer protection laws are well-suited to addressing any openness concerns.<sup>53</sup>

---

<sup>47</sup> Rahul Awati, “Net Neutrality,” *TechTarget*, August 2021, <https://www.techtarget.com/searchnetworking/definition/Net-neutrality>.

<sup>48</sup> Federal Communications Commission, “Protecting and Promoting the Open Internet” (GN Docket No. 14-28), Report and Order on Remand and Order on Remand, Declaratory Ruling, and Order (FCC 15-24), February 26, 2015, <https://www.fcc.gov/document/fcc-releases-open-internet-order>. Hereinafter, “Protecting and Promoting the Open Internet,” FCC 15-24.

<sup>49</sup> Broadband internet access service is defined as a “mass-market retail service by wire or radio that provides the capability to transmit data to and receive data from all or substantially all Internet endpoints, including any capabilities that are incidental to and enable the operation of the communications service, but excluding dial-up Internet access service. This term also encompasses any service that the Commission finds to be providing a functional equivalent of the service described in the previous sentence, or that is used to evade the protections set forth in [these Regulations].” “Protecting and Promoting the Open Internet,” FCC 15-24.

<sup>50</sup> A common carrier is defined as “any person engaged as a common carrier for hire, in interstate or foreign communication by wire or radio or interstate or foreign radio transmission of energy, except where reference is made to common carriers not subject to this chapter; but a person engaged in radio broadcasting shall not, insofar as such person is so engaged, be deemed a common carrier.” 47 U.S.C. §153(11).

<sup>51</sup> A petition for *en banc* (full court) review of the ruling was denied and a subsequent petition for U.S. Supreme Court review was declined. National Public Radio, *U.S. Appeals Court Upholds Net Neutrality Rules in Full*, June 14, 2016, <https://www.npr.org/sections/thetwo-way/2016/06/14/471286113/u-s-appeals-court-holds-up-net-neutrality-rules-in-full>.

<sup>52</sup> Federal Communications Commission, “Restoring Internet Freedom” (WC Docket 17-108), Declaratory Ruling, Report and Order, and Order (FCC 17-166), December 14, 2017, <https://docs.fcc.gov/public/attachments/FCC-17-166A1.pdf>. Hereinafter, “Restoring Internet Freedom,” FCC 17-166.

<sup>53</sup> *Ibid.*, para. 140. The FCC also placed some antitrust oversight under the purview of the Department of Justice. See,

Net neutrality policy is influenced by shifts in presidential, congressional, and FCC leadership. It remains a topic of interest to Congress, as evidenced by its inclusion in confirmation hearings of Commission nominees, and FCC budget and oversight hearings. For example, Chairwoman Rosenworcel has stated that she supports reinstating the regulatory framework of the 2015 Order,<sup>54</sup> but pending the confirmation of a fifth commissioner or another composition of FCC commissioners who could reach a majority vote, action is unlikely. President Biden’s nominee for a third Democratic commissioner, Gigi Sohn, has not been confirmed to date. The Senate Committee on Commerce, Science, and Transportation held a second hearing on Sohn’s nomination on February 9, 2022, but on March 3, 2022, the committee “failed to report favorably” on the nomination.<sup>55</sup> No additional action on her nomination has been scheduled to date.

The debate over the appropriate framework for regulating BIAS continues—whether broadband should be treated as an information service under Title I or a telecommunications common carrier under Title II. Previously, the courts have indicated their willingness to defer to the FCC’s authority to define, and therefore regulate, BIAS; therefore, it is possible that the agency could issue new rules each time the political majority changes. However, the June 30, 2022, Supreme Court decision *West Virginia v. EPA*<sup>56</sup> may complicate future FCC rulemakings. In that decision, the Court weakened its previous emphasis on agency deference and rulemaking authority. Many observers have noted that Congress could settle the debate through legislation, but to date, legislation in support of either position has not been passed.

#### **CRS Analyst Contacts:**

Patricia Moloney Figliola, Specialist in Internet and Telecommunications Policy (policy issues), and Chris D. Linebaugh, Legislative Attorney (legal issues)

#### **For further reading:**

CRS Report R40616, *The Federal Net Neutrality Debate: Access to Broadband Networks*, by Patricia Moloney Figliola.

CRS Report R46973, *Net Neutrality Law: An Overview*, by Chris D. Linebaugh.

CRS Legal Sidebar LSB10693, *ACA Connects v. Bonta: Ninth Circuit Upholds California’s Net Neutrality Law in Preemption Challenge*, by Chris D. Linebaugh.

## **Quadrennial Media Ownership Review**

Section 202(h) of the Telecommunications Act of 1996<sup>57</sup> requires the FCC to review its ownership rules every four years and determine whether they “are necessary in the public interest as the result of competition.” Furthermore, Section 202(h) directs the FCC to “repeal or modify any regulation it [deems] to be no longer in the public interest.” On December 12, 2018, the FCC

---

for example, “Restoring Internet Freedom,” FCC 17-166, para. 203.

<sup>54</sup> “Biden’s New FCC Chair May Signal a Return to Net Neutrality, But It Could Take a While,” *Fortune*, November 15, 2021, <https://fortune.com/2021/11/15/new-fcc-chair-net-neutrality-biden-jessica-rosenworcel/>.

<sup>55</sup> PN1536—Gigi B. Sohn—Federal Communications Commission, <https://www.congress.gov/nomination/117th-congress/1536>.

<sup>56</sup> *West Virginia v. Environmental Protection Agency*, 597 U.S. \_\_\_\_ (2022), [https://www.supremecourt.gov/opinions/21pdf/20-1530\\_n758.pdf](https://www.supremecourt.gov/opinions/21pdf/20-1530_n758.pdf).

<sup>57</sup> Telecommunications Act of 1996, P.L. 104-104, §202(h), 110 Stat. 56, 111-12 (1996).

adopted a Notice of Proposed Rulemaking (NPRM) commencing its 2018 Quadrennial Review of its media ownership rules.<sup>58</sup> Shortly thereafter, the FCC put the proceeding on hold while it awaited legal decisions related to the rules adopted in its combined 2010/2014 Quadrennial review proceeding. On April 1, 2021, the U.S. Supreme Court (in a 9-0 decision) upheld the FCC's rules, rejecting an appeal brought by a coalition of public interest groups led by Prometheus Radio Project.<sup>59</sup>

After the Court decided in its favor, in June 2021, the FCC opened a new proceeding to add updated information from commenters in its 2018 Quadrennial Media Ownership Review.<sup>60</sup> Specifically, the agency requested comment regarding the broadcast industry's evolution since early 2019 and its current trajectory, including the effects, if any, of technological change, new entry, consolidation, or changing market conditions. The FCC also requested comment on the development and impact of technological advances and industry practices.

In January the agency staff stated that it did not intend to combine the 2018 and 2022 reviews because Section 202(h) says the FCC "shall" review broadcast ownership rules every four years.<sup>61</sup> The current FCC has interpreted that to mean that discrete reviews are required, despite that the Commission previously combined the 2010 and 2014 reviews.<sup>62</sup> As of June 2022, the agency had not initiated its 2022 review. Until the FCC completes its 2018 Quadrennial Review, its reviews of whether proposed transactions involving broadcast television stations comply with its media ownership rules could be delayed.<sup>63</sup> The Commission's rulings on such transactions could affect consumers and the number of separate local newscasts within a community and the cost of broadcast station retransmission rights included in their monthly cable or satellite subscription charges.

For example, as of June 2022, the FCC continued to review an application to transfer control of TEGNA Inc., the owner of 64 broadcast TV stations and 2 radio stations, to SGCI Holdings.<sup>64</sup> To

---

<sup>58</sup> Federal Communications Commission, "2018 Quadrennial Regulatory Review—Review of the Commission's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996" (MB Docket 18-349), Notice of Proposed Rulemaking, December 12, 2018, <https://www.fcc.gov/document/fcc-commences-2018-quadrennial-review-media-ownership-rules-0>.

<sup>59</sup> *FCC v. Prometheus Radio Project*, 151 S. Ct. 1150 (2021).

<sup>60</sup> Federal Communications Commission, "Media Bureau Seeks to Update the Record in the 2018 Quadrennial Regulatory Review" (MB Docket 18-349, DA 21-657), News Release, June 4, 2021, <https://docs.fcc.gov/public/attachments/DA-21-657A1.pdf>.

<sup>61</sup> Monty Tayloe, "FCC Won't Roll 2018, 2022 QRs Together: Bureau Staff," *Communications Daily*, January 28, 2022.

<sup>62</sup> Federal Communications Commission, "2014 Quadrennial Regulatory Review—Review of the Commission's Broadcast Ownership Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996; 2010 Quadrennial Regulatory Review—Review of the Commission's Ownership Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996; Promoting Diversification of Ownership in the Broadcasting Service; Rules and Policies Concerning Attribution of Joint Sales Agreements in Local Television Markets, Second Report and Order, FCC 116-107," 31 *FCC Record* 8964, August 25, 2016. Current broadcast attribution rules are listed in 47 C.F.R. §73.3555, Note 2.

<sup>63</sup> To help it enforce its media ownership rules, the FCC has developed attribution rules "to identify those interests in or relationships to licensees that confer a degree of influence or control such that the holders have a realistic potential to affect the programming decisions of licensees or other core operating functions." Federal Communications Commission, "Review of the Commission's Regulations Governing Attribution of Broadcast and Cable/MDS Interests, Review of the Commission's Regulations and Policies Affecting Investment in the Broadcast Industry, Reexamination of the Commission's Cross-Interest Policy, Report and Order, FCC 99-207," 14 *FCC Record* 12559, August 6, 1999.

<sup>64</sup> Federal Communications Commission, "Proceedings & Actions, Mergers & Transactions, Transactions, Standard General and Tegna, MB Docket 22-162," at <https://www.fcc.gov/transaction/standard-general-tegna>.

fund the transaction, Cox Media, which owns 33 broadcast television stations and 54 radio stations, and additional subsidiaries of its parent company, investment firm Apollo Management Group, are to purchase non-voting shares in the subsidiary SGCI.<sup>65</sup> TEGNA and SGCI told the FCC that under the FCC’s rules, neither Cox Media nor Apollo would have an attributable interest in SGCI after SGCI purchases TEGNA’s stations.<sup>66</sup> In addition, the parties assured the FCC that Cox Media and TEGNA would not jointly negotiate agreements with satellite and cable operators to retransmit the television stations’ signals.<sup>67</sup>

Cox and Tegna each own a television station affiliated with one of the four major networks (ABC, CBS, FOX, and NBC) in six markets: Atlanta, GA; Seattle-Tacoma, WA; Charlotte, NC; Jacksonville, FL; Memphis, TN; and Spokane, WA.<sup>68</sup> The FCC’s current “duopoly” rules generally prohibit a single company from owning more than one major station in each of those markets. However, the FCC may waive the rules on a case-by-case basis, if it determines that doing so would serve the public interest.

As this example illustrates, the FCC’s decision with respect to its media ownership rulemaking proceeding, i.e., whether to retain or amend the rules, will have a significant impact on both television viewers and industry participants.

**CRS Analyst Contact:**

Dana Scherer, Specialist in Telecommunications Policy

**For further reading:**

CRS Report R45338, *Federal Communications Commission (FCC) Media Ownership Rules*, by Dana A. Scherer.

## Broadband Labels

In January 2022, the FCC adopted an NPRM, “Empowering Broadband Consumers Through Transparency,” to create new broadband labels.<sup>69</sup> Congress directed the FCC to create these labels as part of the Infrastructure Investment and Jobs Act (P.L. 117-58) as a consumer protection. The

---

<sup>65</sup> Cox Enterprises, Inc., “Cox Enterprises Announces Close of Cox Media Group Sale to Affiliates of Apollo Global Management,” press release, December 17, 2019, at <https://www.prnewswire.com/news-releases/cox-enterprises-announces-close-of-cox-media-group-sale-to-affiliates-of-apollo-global-management-300976507.html>; TEGNA Inc. and SGCI Holdings Amended Comprehensive Exhibit [Public Interest Statement] March 23, 2022, p. 4, n. 11, at <https://www.fcc.gov/transaction/standard-general-tegna> (Application Documents, “Public Interest Statement”).

<sup>66</sup> Teton Parent Corporation [a subsidiary of SGCI] Petition for Declaratory Ruling Under Section 310(b)(4) of the Communications Act of 1934, as Amended, March 10, 2022, p. 6, n. 15, at <https://enterpriseefiling.fcc.gov/dataentry/views/public/assignmentDraftCopy?displayType=html&appKey=25076ff37f8fa68f017f998e7ee00cbd&id=25076ff37f8fa68f017f998e7ee00cbd&goBack=N>.

<sup>67</sup> Christopher Cole, “Tegna Says Apollo, Cox Won’t Partake in Retransmission Talks,” *Law 360*, June 14, 2022, at <https://www.law360.com/articles/1502713/teгна-says-apollo-cox-won-t-partake-in-retransmission-talks> (available via subscription). § 103 of the Satellite Extension and Localism Reauthorization Act also prohibits a television broadcast station from negotiating a retransmission consent contract jointly with another broadcast station in the same market, regardless of its audience size, unless the FCC considers the stations to be directly or indirectly owned, operated, or controlled by the same entity. Thus, the FCC’s attribution rules affect a station’s retransmission consent negotiations.

<sup>68</sup> Justin Nielson, “Standard-General’s Buyout of TEGNA Values the Stations at 8.3x 2022-23 Cash Flow,” *S&P Capital IQ*, March 4, 2022.

<sup>69</sup> Federal Communications Commission, “Empowering Broadband Consumers Through Transparency” (CG Docket 22-2), Notice of Proposed Rulemaking, January 6, 2022, <https://www.fcc.gov/document/empowering-broadband-consumers-through-transparency>.

rulemaking proceeding invited comment on the FCC’s proposal, which would require, among other things, that ISPs display, at the point of sale, labels to disclose to consumers certain information about prices, introductory rates, data allowances, broadband speeds, and management practices. Comments were due March 9, 2022, and reply comments were due March 24, 2022.

The FCC has also conducted three public hearings to inform labeling requirements. The hearings were held on March 11, 2022, April 7, 2022, and May 25, 2022. The hearings included presentations from federal agency representatives, outside experts, and consumers.

Although the FCC created similar labels in 2016, those labels were voluntary and contained less information than would be required in the proposed labels. The goal of the updated labels is to “make sure consumers know what they’re paying for” and “increase incentives for carriers to compete on price and service.”<sup>70</sup> ISPs were broadly supportive of broadband labels, but commented on a number of issues, including specific proposed content and format of labels. Some proposed including information on network technology and other parameters not originally included in the 2016 labels, while others expressed concerns that overly complex labels might defeat the purpose of presenting clear summary information to consumers, or else pose unnecessary compliance burdens to ISPs—especially smaller companies.<sup>71</sup> The rulemaking proceeding had not concluded at the time of this report’s publication. Congress may wish to exercise oversight of the rulemaking process to ensure FCC implementation of the legislation conforms to congressional intent.

**CRS Analyst Contact:**

Brian E. Humphreys, Analyst in Science and Technology Policy

**For further reading:**

CRS Report R46967, *The Infrastructure Investment and Jobs Act (P.L. 117-58): Summary of the Broadband Provisions in Division F*, coordinated by Patricia Moloney Figliola.

## Robocall Rules Enforcement

In recent years, unwanted robocalls have been a top constituent complaint received by Members of Congress, as well as the top consumer complaint received by the FCC.<sup>72</sup> In response to an FCC mandate, the telecommunications industry developed and has largely implemented a framework known as “STIR/SHAKEN.”<sup>73</sup> STIR/SHAKEN is a set of protocols and standards used to verify the source of calls and enable carriers to identify those making them. While robocalls originating from within the United States have decreased with the implementation of STIR/SHAKEN, robocalls originating outside the United States that spoof U.S. phone numbers have not. In

---

<sup>70</sup> Ibid.

<sup>71</sup> For an example of the former, see FCC, Wireline Competition Bureau, The Fiber Broadband Association, WC Docket No. 2-22, Washington, DC, March 24, 2022, at <https://www.fcc.gov/ecfs/file/download/DOC-5fef653862c00000-A.pdf>. For examples of the latter concerns on complexity and compliance burdens, see FCC, Wireline Competition Bureau, Joint Reply Comments of NTCA—The Rural Broadband Association and The Wireless Internet Service Providers, WC Docket No. 2-22, Washington, DC, March 24, 2022, at <https://www.fcc.gov/ecfs/file/download/DOC-5fef583afd000000-A.pdf>; FCC, ACA Connects, WC Docket No. 2-22, Washington, DC, March 24, 2022, at <https://www.fcc.gov/ecfs/file/download/DOC-5fef9a27b8000000-A.pdf>.

<sup>72</sup> Federal Communications Commission, “TRACED Act Implementation,” Updated November 5, 2021, <https://www.fcc.gov/TRACEDAct>.

<sup>73</sup> Ibid. There are numerous FCC actions related to STIR/SHAKEN, all of which are described on the FCC’s “TRACED Act Implementation” page.

response to this continuing problem, on May 20, 2022, the FCC adopted rules requiring “gateway” carriers, which are the point of entry for foreign calls into the United States, to implement STIR/SHAKEN.<sup>74</sup> It also adopted a Further Notice of Proposed Rulemaking seeking comment on additional ways to address illegal robocalls, and an Order on Reconsideration that expands the prohibition on accepting calls from providers not listed in the Robocall Mitigation Database to include calls from foreign intermediate providers.

**CRS Analyst Contact:**

Patricia Moloney Figliola, Specialist in Internet and Telecommunications Policy

**For further reading:**

CRS Report R46311, *Federal Communications Commission: Progress Protecting Consumers from Illegal Robocalls*, by Patricia Moloney Figliola.

## Public Safety

The FCC may monitor or focus on several public safety initiatives in 2022, such as the 9-8-8 Suicide Prevention Line, which launched on July 16, 2022.<sup>75</sup> The FCC adopted rules in July 2020 establishing 9-8-8 as the nationwide number for people in crisis. The rules also require providers to direct all 9-8-8 calls to the existing National Suicide Prevention Lifeline, which counsels and refers people to community-based mental health services.<sup>76</sup> Some Members of Congress expressed concern that the hotline may not provide precise geolocation of callers, which could delay necessary help to save lives.

The FCC issued a report in August 2021 on a nationwide test of wireless emergency alerts (WEA)—alerts to cell phones. The FCC’s Public Safety and Homeland Security Bureau is examining results of the tests, including reported issues with alerts (e.g., non-receipt of WEA alerts, duplicate alerts, geo-targeting accuracy) and appropriate measures to improve WEA’s reliability.

The FCC has also focused on improving geolocation of 9-1-1 calls. The FCC established a timeline for improvements, including several in 2022 (e.g., that telecom providers provide 9-1-1 centers a dispatchable location for wireless callers, or z-axis location, such as the floor that the caller may be on); the FCC has additional improvements planned for future years.<sup>77</sup>

**CRS Analyst Contact:**

Jill C. Gallagher, Analyst in Telecommunications Policy

**For further reading:**

CRS Report R45253, *Next Generation 911 Technologies: Select Issues for Congress*, by Jill C. Gallagher.

---

<sup>74</sup> Federal Communications Commission, “Empowering Broadband Consumers Through Transparency” (CG Docket 22-2), Notice of Proposed Rulemaking, January 6, 2022, <https://www.fcc.gov/document/empowering-broadband-consumers-through-transparency>.

<sup>75</sup> For more information, see FCC, “Suicide Prevention Hotline,” <https://www.fcc.gov/suicide-prevention-hotline>.

<sup>76</sup> CRS Report R46555, *Federal Efforts to Address the Mental Health of First Responders: Resources and Issues for Congress*, coordinated by Johnathan H. Duff.

<sup>77</sup> FCC, “Indoor Location Accuracy Timeline,” <https://www.fcc.gov/public-safety-and-homeland-security/policy-and-licensing-division/911-services/general/location-accuracy-indoor-benchmarks>.

## Author Information

Patricia Moloney Figliola, Coordinator  
Specialist in Internet and Telecommunications  
Policy

Colby Leigh Rachfal  
Analyst in Telecommunications Policy

Jill C. Gallagher  
Analyst in Telecommunications Policy

Dana A. Scherer  
Specialist in Telecommunications Policy

Brian E. Humphreys  
Analyst in Science and Technology Policy

## Key Policy Staff

Topic	Primary Point(s) of Contact
Broadband Data and Mapping	Colby Leigh Rachfal, Analyst in Telecommunications Policy
5G	
General	Jill C. Gallagher, Analyst in Telecommunications Policy
Spectrum Interference	Jill C. Gallagher, Analyst in Telecommunications Policy
Spectrum Coordination	Jill C. Gallagher, Analyst in Telecommunications Policy (FCC) Ling Zhu, Analyst in Telecommunications Policy (NTIA)
National Security Concerns	Jill C. Gallagher, Analyst in Telecommunications Policy
5G Rural Fund	Jill C. Gallagher, Analyst in Telecommunications Policy
Net Neutrality	
Policy Issues	Patricia Moloney Figliola, Specialist in Internet and Telecommunications Policy
Legal Issues	Chris D. Linebaugh, Legislative Attorney
Quadrennial Media Ownership Review	Dana Scherer, Specialist in Telecommunications Policy
Broadband Labels	Brian E. Humphreys, Analyst in Science and Technology Policy
Robocall Rules Enforcement	Patricia Moloney Figliola, Specialist in Internet and Telecommunications Policy
Public Safety	Jill C. Gallagher, Analyst in Telecommunications Policy

---

## **Disclaimer**

This document was prepared by the Congressional Research Service (CRS). CRS serves as nonpartisan shared staff to congressional committees and Members of Congress. It operates solely at the behest of and under the direction of Congress. Information in a CRS Report should not be relied upon for purposes other than public understanding of information that has been provided by CRS to Members of Congress in connection with CRS's institutional role. CRS Reports, as a work of the United States Government, are not subject to copyright protection in the United States. Any CRS Report may be reproduced and distributed in its entirety without permission from CRS. However, as a CRS Report may include copyrighted images or material from a third party, you may need to obtain the permission of the copyright holder if you wish to copy or otherwise use copyrighted material.