



Telecommunications 2022 Policy Outlook

Underappreciated risks and opportunities
the industry will face this year

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Accelerated Telecom Action and 5G Disputes

The Biden administration and Democrat-led federal agencies are ramping up efforts to implement the president's telecommunications agenda.

- The Federal Communications Commission will accelerate its efforts to reimpose net neutrality as soon as Democrats gain a majority this year.
- Agencies will act aggressively to expand broadband service to underserved areas, carving out opportunities for providers that expand service in those areas.
- Agency disputes will hasten amid disjointed efforts to allocate spectrum on a band that is already saturated with commercial and government users.

Major Theme

Regulatory Action to Accelerate Now That Biden's Team is Almost Established

The Biden administration accomplished little with respect to telecommunications policy through agencies in 2021, as it focused on moving the president's legislative agenda through Congress before getting his nominees approved. This meant the Federal Communications Commission (FCC) was deadlocked in 2021 with two Republican and two Democratic commissioners, and the National Telecommunications and Information Administration (NTIA) was run by an interim appointee.

However, Biden is now well-positioned to get his nominees confirmed in early 2022, setting the stage to move on policy. In December, the Senate confirmed FCC Chair Jessica Rosenworcel, and Gigi Sohn, whom Biden nominated to fill the fifth seat on the FCC board, survived a contentious confirmation hearing and will likely be approved by the Senate in early 2022. Alan Davidson, President Biden's nominee to run NTIA, had his confirmation hearing and will likely be confirmed on a bipartisan basis.

Though Biden has yet to push his telecommunications policy agenda, Democrats effectively controlled the FCC and NTIA throughout 2021. While the agencies did not push controversial rulemakings supporting Democratic policy objectives, staff from both agencies worked on starting work on a host of Democratic issues, ranging from reimposing net neutrality to distributing tens of billions of dollars in federal funding for rural broadband deployment.

Once Biden's team is firmly in place this year, we believe the FCC and NTIA will work more openly on these initiatives and start formal rulemaking processes, solicit comments from industry stakeholders and the public, and approve final rules. These efforts will culminate with funding being distributed for the construction of broadband networks in unserved and underserved areas.

Telecom Opportunities

Broadband Funding an Opportunity for Cable, Content Providers, Fixed Wireless, and Fiber Owners

Winners	Cable companies, providers using fixed wireless, and owners of fiber in areas built out with federal funding
Losers	Incumbent providers in underserved areas that choose not to take federal funding

The one meaningful telecommunications policy change the president pushed through in 2021 was the inclusion of \$65 billion in funding for broadband-related initiatives in the Infrastructure Investment and Jobs Act (IIJA). Most of these funds remain unspent, and the FCC and NTIA will be charged with disbursing them, managing the broadband buildout in unserved and underserved communities and populations starting in 2022.

About three-quarters of the \$65 billion to fund broadband-related initiatives are devoted to investments in broadband infrastructure in unserved and underserved communities. NTIA has been tasked with distributing \$48.2 billion of this funding through its newly established Office of Internet Connectivity and Growth (OICG).

\$42.45 billion will be funneled through NTIA's Broadband Equity, Access, and Deployment (BEAD) Program. NTIA will distribute the funds to states, territories, and the District of Columbia based on their number of unserved locations. Each state will receive \$100 million to set up staffing and operations for state and local broadband offices. The rest will be distributed once accurate broadband maps from the FCC become available. That process could take until early 2023 to complete.

States then will distribute the funds to local partners, including cable companies, ILECs, and municipalities that intend to build their own broadband networks in eligible areas. However, states are required to first fund projects in unserved areas (80% of locations below 25/3 Mbps service), followed by underserved areas (80% of locations below 100/20 Mbps service), and then to support anchor institutions such as libraries, schools, and hospitals with 1 Gbps service.

Distributing the \$42.45 billion involves coordination among three sets of policymakers. The FCC must create the broadband maps, which are crucial for determining how states allocate their share of the funds. NTIA is charged with distributing the money and overseeing state administration efforts. This includes requiring states to verify that the entities getting their money have a "low-cost plan" to reach "eligible subscribers," though those terms are not defined in the IIJA.

NTIA's rules governing state broadband deployment grant programs are due by mid-May, within 180 days of the IIJA's November 15, 2021, enactment. States must then distribute the money to the entities managing the broadband buildout, with each crafting grant programs to meet their particular needs.

Consumer Subsidies to Benefit Broadband Providers

Winners	Wireline and wireless broadband providers, content providers
Losers	None

The widespread economic disruption caused by COVID-19 has made expanding access to broadband to the top of near-term telecommunications priorities for policymakers, but it will require a multifaceted approach. One way

policymakers made telecommunications services more inclusive is providing consumer subsidies to low-income households, though such programs historically focus on subsidizing voice service and have only recently been used for broadband. We believe a Democrat-led FCC will act aggressively to make broadband more widely available to underserved groups.

Democrats may try to reform the Lifeline program and the Affordable Connectivity Program to allow low-income households to receive multiple devices or accounts through the program. This is important for households with school-age children who use remote learning. Also, data caps on these programs have to be lifted to accommodate data-intensive uses such as videoconferencing. Raising data caps and providing additional devices and accounts to households will likely dramatically increase the cost of the programs above the subsidies currently provided through both programs.

They also could establish a permanent broadband subsidy program with dedicated funding that covers both wireless and wireline broadband. Congress provided \$17.7 billion to fund broadband subsidies in a COVID-19-related stimulus bill and the IIJA, but once these funds are exhausted, the Affordable Connectivity Program will end and the \$30 per month eligible subscribers receive to help cover the cost of their broadband plans will disappear. Revising the E-Rate program to fund wireless and wireline broadband services for students in remote-learning environments is another option. The program allows E-Rate funds to pay only for devices for school classrooms and libraries, but it could be modified to include a child's home at the discretion of the FCC.

The Universal Service Fund (USF) could expand its contribution base past voice revenues to include broadband services. Right now, USF contributions are paid based on each provider's relative share of aggregate

voice revenues, but voice revenue is declining while broadband revenues are growing. The FCC and Congress are considering revisiting how the USF is funded and the most likely outcome will expand its contribution base to include broadband services.

Telecom Risks

Net Neutrality Action Opens Door to More Intrusive Regulations

Winners	Content providers
Losers	All ISPs, though the greatest risk is post-net neutrality regulation when ISPs are deemed common carriers and subject to utility-style regulation at either the federal or state level.

Net neutrality has been a policy priority of Democrats since the presidential election, but they cannot begin the rulemaking process until they have a majority on the commission. This will not happen until President Biden gets a fifth commissioner confirmed by the Senate. We believe the FCC's staff has been quietly working behind the scenes gathering information, meeting with stakeholders, and perhaps even drafting a notice of proposed rulemaking (NPRM). However, it still takes a majority of commissioners to get the NPRM approved.

It is possible that a Democrat-led FCC would short circuit a formal rulemaking process and instead issue a declaratory ruling reversing a 2018 order and reinstate the 2015 Open Internet Order. The 2015 order classified wireless and wireline broadband providers under Title II, imposing net neutrality.

However, because this move could leave the FCC open to legal challenge on the grounds it violated the Administrative Procedures Act, our base case is the FCC will hold a formal rulemaking process with a comment period

as brief as possible and an order approved reinstating net neutrality within 12 months of starting the rulemaking process. However, if the FCC, chooses to proceed with a rulemaking, Democrats will need a majority to reimpose net neutrality.

Net neutrality effectively bans the paid prioritization, throttling, and blocking of traffic. The exception to these prohibitions is ISPs may block or throttle traffic to manage their network, though these steps must be taken on a nondiscriminatory basis. The reimposition of net neutrality means ISPs would not be able to give preferential treatment to their affiliated content providers. That would make companies such as Comcast Corp. (CMCSA) losers and unaffiliated content providers such as Netflix Inc. (NFLX) and Alphabet Inc. (GOOGL) winners.

It is a problem for major telecommunications companies that regulators intend to impose net neutrality. The FCC would have to find that broadband providers are common carriers under Title II of the Communications Act of 1934. This determination would give the commission wide latitude to regulate both wireless and wireline companies, much like a utility. In theory, this could include regulating pricing or requiring ISPs to offer wholesale access to all or part of their networks, which could affect other aspects of how broadband providers run their businesses. The 2015 Open Internet Order included provisions granting forbearance on much of Title II, with exceptions for those parts giving the FCC the authority to prohibit the blocking, throttling, and paid prioritization of traffic. However, there is concern within the industry that the FCC could later rescind this forbearance and move to regulate pricing or other ISP business practices.

Capstone believes there is a risk the FCC takes steps to regulate ISPs beyond simply reimposing net neutrality. However, in the

near-to-intermediate term, we believe the most likely outcome is for the FCC to rescind its 2018 order repealing net neutrality, and either reinstate its 2015 Open Internet Order or approve a new order modeled along its lines. This would limit the FCC’s authority over ISPs primarily to a prohibition against the blocking, throttling, and paid prioritization of traffic. Such an order also would cover both wireless and wireline broadband providers and most likely prohibit the zero-rating of data by wireless companies—a practice some carriers are already abandoning.

One example is AT&T Inc.’s (T) decision to stop zero-rating HBO Max data on its wireless plans because this likely would have been considered a form of paid prioritization under net neutrality. Widespread pricing regulation does not appear to be on the horizon at this time. However, we would not be surprised to see it crop up on a limited basis in other proceedings unrelated to net neutrality. One example would be for companies that agree to future subsidy programs, such as the one through which NTIA will distribute \$42.45 billion for the deployment of broadband service in unserved and underserved communities.

Agency Spectrum Infighting to Add to 5G Uncertainty

Winners	Smaller wireless companies, unlicensed users, cable companies, mobile virtual network operators, and content providers that would gain access to additional available spectrum.
Losers	Major wireless companies that control most available spectrum, federal agencies that underutilize spectrum they have been allocated.

The federal government makes the FCC and NTIA responsible for different factions of spectrum policy. NTIA administers federal use of spectrum while the FCC regulates non-federal use. Substantially all usable spectrum bands from 9 kHz and 275 GHz have been allocated, with the federal government holding the single largest collection of allocations. Because all usable spectrum has been allocated, the FCC comes into conflict with federal agencies when it reallocates spectrum. These conflicts between the commission and other agencies can be difficult and time-consuming to resolve because the FCC has little unencumbered spectrum that it can make available for civilian use, meaning stakes are high in any dispute.

In theory, the FCC and NTIA work together to manage spectrum policy, particularly when the FCC wants to repurpose spectrum currently used by a federal agency or that close to spectrum used by a federal agency. However, in recent years, there has been friction between the FCC, NTIA, and other federal agencies on several spectrum-related proceedings.

The FCC and the Federal Aviation Administration (FAA) are sparring over spectrum located near where altimeters operate that has been repurposed for use with 5G wireless networks. The FCC has licensed this spectrum primarily to AT&T and Verizon Communications Inc. (VZ), but the FAA argues that this could cause harmful interference and flight safety risks. It is threatening to curtail some flights in areas where 5G service is launched on the C-Band.

There is also a conflict involving spectrum adjacent to that used by GPS. Ligado Networks LLC was granted authority to operate a combined terrestrial and satellite communications network against objections from several stakeholder groups, including

more than a dozen federal agencies and several members of Congress. Another fight concerns the 24 GHz band, where several federal entities, including the US Navy and National Oceanic and Atmospheric Administration (NOAA), claim that allowing wireless companies to operate in the 24 GHz band would put them too close to weather satellites that track water vapor in the atmosphere.

Most of these disputes lack coordination between the FCC and other agencies. This has sometimes led agencies such as the FAA or NOAA to try to overturn FCC rulemakings that repurpose spectrum for use by wireless companies a year or two after the fact. All these disputes, which had their start during the Trump administration, likely could have been resolved had there been a more coherent White House spectrum policy. The Trump administration was focused on getting 5G deployed as fast as possible and paid little attention to nuts-and-bolts issues such as getting federal agencies to work cooperatively on spectrum-related proceedings.

Given that the federal government is the largest user of spectrum and the FCC has to replenish its spectrum inventory when additional spectrum is available for civilian use on either a licensed or unlicensed basis, it will become increasingly important for NTIA and the FCC to work together to find more federal spectrum that can be reallocated to a higher and better use. This can happen only through enhanced cooperation between the FCC, NTIA, and other federal agencies.

We believe fostering this enhanced cooperation will be an ongoing policy effort for the Biden administration, though it could take years for the FCC to find meaningful amounts of spectrum it can make available in future spectrum auctions.

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