

Closing the Digital Divide Through 5G Spectrum Allocations and Robust Broadband Infrastructure



Americans depend on the internet to access healthcare services, engage in education opportunities, and participate in the global economy. The future of the \$1.7 trillion app economy depends on the strength and density of America’s wireless and wired backhaul networks. The deployment of 5G infrastructure will create 8.5 million jobs in the United States over the next five years and add more than \$900 billion to U.S. gross domestic product. 5G can provide fixed wireless service—which would compete directly with the traditional means of home internet access most consumers use now.



Unfortunately, according to even the most conservative estimates, more than 20 million Americans currently lack access to broadband connections, leaving them on the wrong side of the digital divide. Fortunately, the Federal Communications Commission (FCC) has been hard at work to ensure the best spectrum is available for broadband use, including frequencies in and around the broadcast television band (TV white spaces or TVWS) and the 6 GHz band. To reach these underserved Americans across the country, the federal government must (1) incent the deployment of needed infrastructure based on the most accurate data available and (2) enable 5G connectivity by fully leveraging underutilized spectrum resources in order to close the digital divide and finalizing rules governing their use for broadband.

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Incenting Infrastructure Buildouts to Connect All Americans Based on Accurate Data

A major reason for the lack of adequate internet connectivity is the high cost of infrastructure deployment. The “last mile” connections—reaching subscribers at their homes—are particularly expensive, especially where there are fewer subscribers to pay for a given stretch of infrastructure. TVWS helps broadband providers solve the deployment cost problem because projecting a broadband connection over the airwaves is less expensive than using infrastructure to extend the connection to the entire “last mile.” In October 2020, the FCC voted to adopt rules that enable robust use of TVWS for broadband on a nationwide basis. The U.S. Department of Agriculture (USDA) also plays an important role in supporting the deployment of new broadband infrastructure in rural America through its administration of the Rural Development Broadband ReConnect Program. FCC and USDA efforts to support and streamline the deployment of new broadband infrastructure should be sustained and expanded.

While major progress has been made, much more needs to be done to put needed infrastructure in place. The millions of Americans who still cannot access broadband at home lack an important means of accessing work, education, and healthcare, and both internet service providers and policymakers need to know exactly where those coverage gaps are so that federal resources can support deployment to them. Accurate and granular maps are central to efforts to close the digital divide, and without them underserved and unserved areas will remain out of reach. The App Association supports the implementation of the **Broadband Deployment Accuracy and Technological Availability (DATA) Act (S. 1822/H.R. 4229, 116th)**, which was signed into law in March 2020. This law directs the FCC to capture more accurately where broadband customers are receiving internet services and at what speeds. But Congress must allocate sufficient funding for the FCC to carry out this task.

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Leveraging Spectrum to Support a 5G Future for America

Broadband supports the 77 percent of Americans who own a smartphone, and more than 28.4 billion internet of things (IoT) devices depend on wireless internet connectivity. As more and more Americans own smartphones and an increasing number of consumer and enterprise IoT devices come online, legacy frequency allocations will not be sufficient to manage this burgeoning network traffic. All providers launched 5G services by mid-2019, and by 2023, estimates indicate that about 50 percent of Americans could be connected to the 5G network. Independent tests are already showing gigabit download speeds for 5G enabled smartphones, and as hardware, software and spectrum resources continue to improve, those speeds should increase further.

While 4G LTE helped make the internet more accessible on mobile devices, 5G offers ultra-low latency to its users, giving mobile infrastructure the reliability needed for the applications that depend on network integrity. These enhancements can provide a highly tailored service to meet specific customer needs, ranging from virtual healthcare treatments, remote working, cutting-edge consumer entertainment, and others. App Association members develop data-rich applications that require a high-quality connection allowing faster data transfer and information sharing between workers who may be at a virtual desk, at a medical clinic, in an IoT-enabled warehouse, or with a customer in the store.

The FCC has taken important strides on a bipartisan basis to realize untapped potential in America's valuable and finite spectrum resources to realize a 5G future. For example, in April 2020, the FCC unanimously approved rule changes to permit 1,200 megahertz of spectrum in the 6 GHz band (5.925–7.125 GHz) for unlicensed uses like Wi-Fi and other standardized interfaces. In October 2020, FCC commissioners unanimously approved new rules to enable use of TVWS as an option for the 20 million Americans who lack access to broadband connectivity, taking a significant step toward resolving outstanding issues impeding TVWS technology through providing common-sense flexibility for antenna heights, allowing mobile operations at higher powers in uncongested areas, and enabling new narrowband internet of things applications such as sensor-driven smart agriculture. America's economic future will require that these actions be supported and built on moving forward.

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To Support the Growth and Potential of the Dynamic American Economy, We Urge Congress to:

- Require the FCC to make more mid-band spectrum (which is ideal for 5G) available for licensed and unlicensed use, as provided for in the Advancing Innovation and Reinvigorating Widespread **Access to Viable Electromagnetic Spectrum (AIRWAVES) Act (S. 2223, 116th)**.
- Liberate more government-owned spectrum bands for commercial internet of things (IoT) use, particularly in the mid-band and millimeter wave bands. Federal agencies hold nearly 60 percent of our nation's spectrum resources, much of which is underused and could be repurposed for 5G deployment and other commercial uses. To this end, we urge you to support the **Government Spectrum Valuation Act (H.R. 8244/S. 1626, 116th)**.
- **Reject proposals to set aside or create a government-run 5G network.** Such a proposal will slow down deployment of 5G infrastructure and connectivity, without improving security, as the government would need to rely on the same vendors as private carriers. Enabling multiple, competing carriers to push each other to provide better security, reliability, and performance is a better way to achieve these important 5G policy objectives.
- Support measures to accelerate the deployment of broadband to unserved areas, such as the **Accelerating Broadband Connectivity Act of 2020 (H.R. 7359/S. 4021, 116th)**. The legislation would accelerate the timeline for cost-effective deployment of broadband facilities to unserved parts of the United States.
- Support measures to ensure subscribers affected by the pandemic can continue to access broadband, such as the bipartisan **Keeping Critical Connections Act (H.R. 6394/S. 3569, 116th)**. The legislation would authorize and appropriate funds to cover small internet service providers' (ISPs') costs associated with providing free or discounted broadband service to low-income subscribers and students during the emergency period.
- Appropriate **additional funding** for the FCC to implement the provisions of the **Broadband DATA Act**.