



August 2, 2017

Ex Parte

Chairman Ajit Pai
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, and related issues (GN Docket No. 12-268; ET Docket No. 14-165; MB Docket No. 15-146; ET Docket No. 16-56)

Dear Chairman Pai:

Engine is a non-profit technology policy, research, and advocacy organization that bridges the gap between policymakers and startups, working with government and a community of high-technology, growth-oriented startups across the nation to support the development of technology entrepreneurship. In our experience, access to affordable, fast Internet connectivity is necessary component of startup activity, and any effort to support entrepreneurial communities must begin with policies that expand Internet access. As such, we are writing to register our support for finalizing rules that would preserve at least three TV white space channels across every U.S. market. We believe that harnessing white spaces for unlicensed use presents a unique opportunity to promote Internet access, innovation, and economic activity in traditionally underserved areas.

At least 34 million Americans lack access to broadband, which severely constrains their ability to participate in the digital economy. Rural communities are especially hard hit because laying down cables in low-density areas is often cost-prohibitive. However, low-frequency white space technologies provide a promising avenue through which to provide high-quality Internet access in an economical fashion. Recent spectrum management policies have freed up a considerable amount of white space in high-power spectrum bands, creating ample opportunities for experimentation with “super Wi-Fi.” The technology can travel through buildings, foliage, and other obstacles with relative ease at long-range distances to provide reliable Internet access. So far, the results are encouraging and could plausibly be generalized to U.S. populations that are unserved or underserved by traditional broadband. The risk of interference with other broadcasters is minimal as the devices in question operate at a low-power. We stress that this is a rare opportunity to promote massive improvements in Internet access—and in turn facilitate entrepreneurship—at basically no cost.

The social good derived from preserving these white spaces far outweighs any conceivable costs. By allowing for further experimentation and innovation in these bands, the U.S. stands to dramatically increase its Internet-penetration rates. Successfully doing so would give

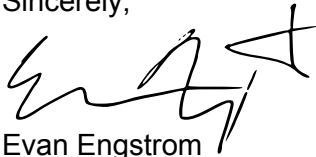
communities access to modern business tools, new markets, and information. It would also improve educational prospects for children who lack broadband connectivity, allowing them to prepare for an economy that effectively requires computer literacy. Cutting-edge Internet of Things startups are currently developing new technologies that will capitalize on available unlicensed spectrum to grow an entirely new economic sector. Simply put, the applications of white space technologies are wide-ranging and massively impactful.

The economic gains generated by linking millions of Americans to the modern digital economy are enormous. Experimentation in the white spaces will propagate the development of innovative technology products. Increased Internet access will boost employment, entrepreneurship, and consumer choice in otherwise marginalized American communities. By comparison, failure to preserve these white spaces will mean that they will likely be reallocated to existing incumbents who are unlikely to generate commensurate benefits. Because such large swaths of spectrum rarely become available, preserving just three spaces now will set America on the right course to increase connectivity and spur economic growth. The benefits far outweigh the minimal costs, and such an opportunity will not be so easily available in the future.

Engine strongly recommends the preservation of at a minimum, three white spaces per U.S. market. This relatively simple policy would yield tremendous economic activity, link more Americans to the digital economy, and spur long-term innovation.

Pursuant to the Commission's rules, a copy of this notice is being filed electronically in the above-referenced dockets.

Sincerely,

A handwritten signature in black ink, appearing to read 'Evan Engstrom', with a stylized flourish at the end.

Evan Engstrom
Executive Director, Engine