



**PUBLIC CONSULTATION PAPER
WIRELESS LOCAL AREA NETWORK (WLAN)
IN THE 6 GHz FREQUENCY BAND**

APPENDIX 6

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AT&T takes FCC to court over 5G backhaul



News Analysis

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 COMMENT (0)

Lawyers representing AT&T, Apple, Google, Cisco, utility providers, FCC officials and others are scheduled to appear at the D.C. Circuit Court of Appeals Friday to squabble over the 6GHz spectrum band. At the heart of the issue are the current, incumbent users of the band – represented by AT&T, utility providers and others – that are worried their existing operations will be affected by new Wi-Fi users coming into the spectrum.

According to AT&T's latest filing in the case, Wi-Fi users in the 6GHz band are "very likely to result in harmful interference at unpredictable places and times." And the company is suing the FCC in part because the agency "arbitrarily rejects readily available safeguards" to prevent such interference, AT&T said.

On the other side of the argument sit Apple, Google, Cisco and others that support new FCC rules that allow unlicensed operations in the 6GHz band, including Wi-Fi.

The FCC, under the Trump administration, last year [voted to allow unlicensed Wi-Fi operations](#) in the 6GHz band. In a [series of Tweets Friday](#), the former FCC chairman who led the agency's 6GHz push defended his actions. "Americans are better off for it," argued Ajit Pai, pointing to new Wi-Fi routers that will be able to use the vast amount of additional capacity that would be freed by operations in the 6GHz band.

Further, [as noted by Politico](#), lawyers for the Biden administration and his acting FCC chair, Jessica Rosenworcel, have defended that Trump-era FCC order. "The FCC's reasoned decision in this case, based on ample evidence in the record, provides more than enough justification for its actions," the agency argued [in its own court filings](#).

Backhauling 5G

But AT&T and others are worried that Wi-Fi users and other unlicensed operations in the 6GHz band will affect their existing systems. That's noteworthy considering AT&T is in the midst of a [major expansion of its 5G network](#) using its new C-band spectrum holdings.



According to a [2018 filing from AT&T](#) and [noted by FierceWireless](#), the operator counts more than 8,000 incumbent licenses for operations in the 6GHz band. Nationwide, AT&T said it counts a total of almost 100,000 incumbent wireless links across the country in the band.

"The 6GHz FS [fixed service] band is the only band suitable for long distance transmission, routinely supporting paths between 10-50 miles and, in cases, even longer distances," AT&T explained.

The 6GHz band is one of several spectrum bands that can be used for wireless backhaul, including for 5G cell sites. Such technologies are typically used in locations where wired backhaul connections are unavailable. [Backhaul connections are a key element in any 5G network](#) because they connect cell sites to the nation's wider Internet backbone.

According to the standards group ETSI, wireless backhaul technologies serve more than 50% of all cell site connections worldwide. And according to the research and consulting firm Dell'Oro Group, roughly 26% of cell sites in North America use wireless backhaul links.

"Maintaining adequate long haul and high reliability [wireless] microwave [backhaul] will be critical for 5G and other advanced services," AT&T argued.

Proving, and disproving, interference

AT&T [has cited data from Southern Company](#) – which operates both a utility network and a commercial wireless network – showing how unlicensed users in the 6GHz band could affect incumbent wireless backhaul connections.

But proponents of Wi-Fi in the 6GHz band have rejected those findings. "The report is wrapped in exaggerated and misleading rhetoric that obscures important methodological flaws and limitations," argued representatives for Apple, Cisco, Facebook, Google and others [in a recent FCC filing](#).

More broadly though, 5G industry representatives have argued that the 6GHz band globally shouldn't be allocated entirely to unlicensed Wi-Fi operations. "The global future of 5G is at risk," wrote John Giusti, the GSMA's chief regulatory officer, [in a recent statement](#).

"5G has the potential to boost the world's GDP [gross domestic product] by \$2.2 trillion," Giusti continued. "But there is a clear threat to this growth if sufficient 6GHz spectrum is not made available for 5G."

But the issue may ultimately be addressed by policymakers. The FCC is [scheduled to vote on new rules later this month](#) that would implement an automated frequency coordination (AFC) system in the 6GHz band. The AFC is specifically intended to prevent interference to incumbent operations.

Related posts:

- [GSMA: 5G is 'at risk' if 6GHz remains unlicensed](#)
- [Can 5G Backhaul Itself?](#)
- [FCC approves 6GHz band for unlicensed uses, including Wi-Fi](#)

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