

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Revisions to Parts 2 and 15 of the)	
Commission’s Rules to Permit)	ET Docket No. 03-122
Unlicensed National Information)	
Infrastructure (U-NII) Devices)	
in the 5 GHz Band)	
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)	

**COMMENTS OF THE
CELLULAR TELECOMMUNICATIONS & INTERNET ASSOCIATION**

The Cellular Telecommunications & Internet Association (“CTIA”)¹ hereby submits comments in response to the Commission’s June 4, 2003, Notice of Proposed Rulemaking² to make 255 MHz of spectrum in the 5 GHz band available for use by unlicensed devices, as well as modification of the Parts 2 and 15 rules to govern the operation of unlicensed devices in the new allocation. CTIA supports the allocation of additional spectrum for unlicensed devices in this band. In the context of the 5 GHz band, where a “command and control” model prevails, it is feasible to craft a regime for

¹ CTIA is the international organization of the wireless communications industry for both wireless carriers and manufacturers. Membership in the organization covers all Commercial Mobile Radio Service (“CMRS”) providers and manufacturers, including cellular, broadband PCS, ESMR, as well as providers and manufacturers of wireless data services and products.

² See *Revisions to Parts 2 and 15 of the Commission’s Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz Band*, Notice of Proposed Rulemaking, ET Docket No. 03-122, RM-10371, FCC 03-110 (“NPRM”) (rel. June 4, 2003).

an unlicensed devices allocation that will protect incumbent Government users from interference. CTIA cautions, however, that exporting an unlicensed underlay approach into commercial bands with more flexible service rules would be much harder. It would require significant additional study and testing before it would be possible to develop an approach that would adequately protect incumbent licensed services from harmful interference that could undermine the efforts and resources expended by those licensees to provide communications services.

I. The Commission Should Ensure Incumbent Licensees Are Protected From Interference Before Adopting Any Unlicensed Allocations.

CTIA believes that, if the Commission allocates any spectrum for unlicensed operations, it must take steps to protect incumbents from any harmful interference. The 5 GHz band is especially well suited for unlicensed operations because the command and control model governs its operations and the environment is relatively stable, so it is possible to develop safeguards to protect incumbents from interference. CTIA commends the Commission for confirming with the incumbent licensees in the 5 GHz band that the proposed rule changes will “provide the necessary protection for [their] vital radar systems.”³

While the use of a license underlay could make sense in certain “command and control” bands where the environment is fixed, as in the 5 GHz band being considered here, it may not make sense to export the underlay concept elsewhere due to the potential for interference. In commercial spectrum such as CMRS bands, which have flexible service rules designed to facilitate innovation, the prospect of underlays would prompt

³ NPRM at ¶ 20.

significant interference concerns and uncertainty that would in fact stifle innovation and hamper full use of the spectrum. Unless and until a great deal more study and testing can validate an approach that will protect licensed users from interference, the Commission must approach the authorization of “underlay” operations in licensed spectrum with extreme caution.

As CTIA stated in its recent comments on the OET/OSP working paper, “the simple fact remains that the concept is still a long-term, theoretical mechanism that may require an immense amount of further empirical study and analytical work before its possible usefulness can be established.”⁴ Much work needs to be done. As the Spectrum Policy Task Force noted, the Commission will likely have to set different interference thresholds for “each band, geographic region, or service,”⁵ based on a myriad of factors that will take a significant amount of time to develop.

Even if the Commission completes its work in this area, the underlay concept may well not make sense in commercial bands such as those used by CMRS that are subject to flexible service rules. In the CMRS environment, for example, licensees would need to continuously monitor to ensure that new unlicensed devices do not cause interference. If interference were encountered, the licensed CMRS provider would be faced with the prospect of identifying the offending devices, and then requesting that the Commission take action against the unlicensed devices. Such a process would undoubtedly be lengthy

⁴ See *Comments of the Cellular Telecommunications & Internet Association*, Commission Seeks Comment on OSP Working Paper 39, ET Docket No. 03-126, at 5 (filed Aug. 21, 2003).

⁵ *Spectrum Policy Task Force Report*, ET Docket No. 02-135, at 28 (rel. Nov. 15, 2002).

and unwieldy, and would likely have the practical effect of deterring licensed CMRS providers from fully utilizing their licensed spectrum to develop innovative new products and service offerings for their customers. Consumers would be the ultimate losers because they would be less likely to have access to innovative products and services.

Accordingly, CTIA again urges the Commission to refrain from considering the “underlay” approach until thorough studies can be completed and the details of a meaningful interference protection framework can be adequately developed.

II. International Harmonization Should be One Factor in Spectrum Allocations in the United States

The Commission is to be commended for considering the output of the recent World Radio Conference with regard to this proposed allocation. As CTIA has stated in the past, “spectrum use within the United States must necessarily be framed in an international context, whether to ensure our use is compatible with our neighbors, or to ensure that our allocations are consistent with international allocations where that is appropriate or necessary.”⁶ CTIA recognizes that there are significant benefits to be gained from allocating spectrum in a way that is harmonized with similar uses elsewhere in the world, to the extent possible. Harmonization enables manufacturers to achieve significant economies of scale for equipment that can result in lower prices for consumers, and can also increase the ease with which services can be offered across borders.

⁶ See *Comments of the Cellular Telecommunications & Internet Association, Spectrum Policy Task Force Seeks Comment on Issues Related to Commission’s Spectrum Policies*, ET Docket No. 02-135, at 15 (filed July 8, 2002).

III. In the Future, Spectrum for Unlicensed Services Should be Allocated Based on Demonstrated Need

As stated above, CTIA supports the allocation of unlicensed spectrum in this band as a positive solution to creating additional unlicensed spectrum resources in a band that is to be used for similar operations internationally. While CTIA recognizes that it may be appropriate to set aside additional spectrum for unlicensed uses in the future as demand arises, CTIA is encouraged that allocation of spectrum to unlicensed devices in the 5 GHz band may provide enough spectrum for unlicensed devices for the foreseeable future. Going forward, the Commission should ensure that any additional allocations for unlicensed services are based on demonstrated need, and that unlicensed operations gain no right to protection from interference.

IV. Conclusion

For foregoing reasons, CTIA supports the allocation of additional spectrum for unlicensed devices in this band. CTIA cautions, however, that significant additional studies and testing would need to be completed in order to protect incumbent licensed services from interference before the Commission should consider exporting an unlicensed underlay approach into commercial bands with flexible service rules.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I, Christine Blomquist, hereby certify that on this 3rd day of September, 2003, the foregoing Comments of the Cellular Telecommunications & Internet Association were filed electronically on the FCC's Electronic Comment Filing System and copies were served via first class mail, postage pre-paid, to the following:

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