

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

In the Matter of)	
Amendment of Parts 1, 21, 73, 74 and)	
101 of the Commission's Rules to)	WT Docket No. 03-66
Facilitate the Provision of Fixed and)	
Mobile Broadband Access, Educational)	RM-11614
and Other Advanced Services in the)	
2150-2162 and 2500-2690 MHz Bands)	

REPLY COMMENTS

1. Background

Northrop-Grumman Systems Corporation (NGSC) is the Systems Integrator on behalf of New York City's Dept. of Information Technology & Telecommunications for the New York City Wireless Network (NYCWiN). NYCWiN is a wireless broadband data network that operates in the 2.5 GHz band utilizing TDD-CDMA technology from IPWireless Inc. (IPWireless). It consists of 377 cell sites, providing ubiquitous coverage throughout the 322 square miles of New York City. NYCWiN is the country's first fully operational public-safety dedicated network, and provides mission critical broadband services to over 29 NYC agencies processing millions of public safety and public service data transactions daily. The network is relied on by New York City first responders and public service agencies including New York City Police Department (NYPD), Fire Department (FDNY), Office of Emergency Management (OEM), Department of Transportation (DOT) and Department of Environmental Protection (DEP).

2. Reply comments in Support of IPWireless Comments

NGSC agrees with the findings and conclusions of IPWireless' initial comments on this matter, and because we currently operate immediately adjacent to another wireless provider in the 2.5 GHz space, we share IPWireless' concerns over the potential for interference if the out-of band emissions limits for 2.5 GHz band mobile devices are loosened. As the Commission is aware, NYCWiN has already experienced base-to-base adjacent channel interference. While we were

able to amicably team with the other carrier to largely resolve this interference through adding additional filtering to the relevant base stations, such a solution is not practical when UE-to-UE interference arises, as we fear it may here. Indeed, that experience highlighted the need for proper filtering, and the potential for serious end-user impacting degradation of network performance when out-of-band emissions are not adequately suppressed.

As pointed out by IPWireless, the primary concern from this NPRM is the potential of interference from UE-to-UE. As stated, NGSC operates NYCWiN in immediate adjacency to a commercial carrier. As the customer base of the commercial carrier grows, and handset proliferation increases, the opportunity and likelihood for that growing commercial UE base to interfere with our Public Safety user base will increase significantly. This proposal to relax masking would result in a full 3dBm decrease in sensitivity (and this is a conservative value, it could be as high as 4.2dBm) at the channel edge. The UE to UE interference problem is cumulative, and will become of increasing concern with the large population of commercial LTE / Wimax users expected in the future – for example in LTE multiple UE's can be transmitting simultaneously in a sector with different resource block allocations, with the interference to a UE in an adjacent channel being additive.

Although some have suggested that current FCC rules provide protection against such interference, those rules appear limited to base-to-base interference and may not provide adequate recourse should UE-to-UE interference be suffered by NYCWiN as a result of a loosened mobile mask. Unsubstantiated claims aside, no meaningful modeling, testing or detailed technical analysis has been presented by those favoring the proposal which demonstrates interference will not result. The claims of non-interference never address the fact that a loosened mask will result in more energy being transmitted into the receivers of nearby receivers, and thus some increase in interference is inevitable. NGSC does not doubt that adoption of the proposal will reduce the cost of mobile devices, but that is only half the battle for proponents of the rule change. They must also demonstrate that a loosening of the mask requirement will not result in increased interference to existing users, such as NYCWiN. They have not done so.

3. Conclusion

It is the position of NGSC that the NPRM proposal introduces unacceptable risk to the end-user performance of the NYCWiN public safety network, and that

further investigation of alternative solutions to the concern stated by WCAI in their petition should be required.

Respectfully

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