WT 06-150
PS 06-229

FILED/ACCEPTED
AUG - 7 2008
Federal Communications Commission
Office of the Secretary

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FCC *En Banc* Hearing, New York, 7/30/08

Mr. Chairman and Commissioners, thank you for inviting us to participate this afternoon. I am Bill Andrle of Northrop Grumman Information Technology, where I am Wireless Alliances and Spectrum Strategy Vice President.

By way of background, Northrop Grumman has been involved for many years now in efforts to help bring broadband wireless capabilities to public safety users. Among other things, in a *Petition for Rulemaking* filed in 2003, Northrop Grumman was one of the first to bring to the Commission's attention the need to alter the Upper 700 MHz Band to accommodate this. The merits of broadband wireless for public safety have since been widely recognized, and we applaud the Commission for embracing a broadband public safety allocation in its reconfiguration of the Band last year.

Northrop Grumman has been involved every step of the way in advocating for the needs of public safety and other mission-critical users, and in undertaking the R&D and design work with our scientists dedicated to this effort. We have applied our expertise in helping the Department of Homeland Security and the National Institute of Standards and Technology with the SAFECOM requirements program, and have more recently contributed to the work of the National Public Safety Telecommunications Council and the Public Safety Spectrum Trust Corporation (PSST) in benchmarking what public safety needs.

As noted by representatives of the New York City agencies, we sit here today protected by first responders empowered with the nation's first full-scale, truly mission-critical grade, broadband mobile network. It was designed and is being built by Northrop Grumman. This network – here, now – meets the Commission's technological and policy objectives.

The challenge of course is to extend to the entire nation the public safety communications capabilities enjoyed here in New York. The biggest hurdle to achieving this goal is obviously lack of funding. Implicit in the Commission's efforts regarding the Upper 700 MHz D Block is the absence of a direct way to fund public safety broadband needs. Instead, we are looking for a commercial operator willing to foot the bill for a shared network. But it does bear mentioning again that this exercise might be unnecessary if there was at least some direct funding from the federal government. We have federal matching funds for highways, the environment, and other needs. Why nothing – zero – to facilitate the establishment of interoperable public safety broadband services that will enable first responders to better protect the public? While there has been significant federal funding for public safety voice interoperability, it has become increasingly evident that appropriate financial support should be specifically directed toward interoperable broadband wireless for public safety. The public safety community should not give up on pursuing this, and we urge the Commission to use even more strongly its "bully pulpit" to help make this happen.

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As Northrop Grumman described in our most recent comments in the rule making, the marketplace is already moving to bring mission-critical broadband wireless services to public safety users on a local and regional basis, notwithstanding the barriers that the Commission has in place on local use of the 700 MHz Public Safety broadband spectrum. Though these networks are too few because potential funding is limited, they are rolling out and will continue to do so in growing numbers, as technologies further mature and increasing economies of scale drive costs down. The Commission should foster and accelerate this by creating a framework for local build-out on the Public Safety broadband spectrum, while the federal government should provide financial support to help state and local public safety entities get them off the ground.

This "network of networks" approach can achieve faster build-out in some areas – and in areas that might not ever be served. It also gives local entities more control over the details of the network design serving their jurisdictions. These networks can be harmonious with the proposed national shared network or – if for whatever reason the public/private partnership does not come to fruition – the continued organic growth of these networks over time can increasingly meet public safety's needs.

As we and others have suggested in comments, the Commission should allow local and regional public safety entities to construct their own mission-critical broadband mobile systems on the Public Safety broadband spectrum, so long as those systems meet or exceed the interoperability and other technical requirements of the national network, or are capable of migrating to the technology chosen by the D Block licensee.

I wish to emphasize that interoperability among local and regional networks can be achieved by the remarkable inherent flexibility of IP-based networks and, for the air interface, by imbedded interoperability in the latest broadband wireless user equipment, with software-defined characteristics and multi-mode capabilities. There is no need to dictate a single air interface technology. As with commercial wireless networks, interoperable "roaming" can be achieved among multiple air interface technologies (and frequencies) using the latest handset technologies. The most important task is to work out the accessibility and interoperability of applications and functions – above the RF level in the rest of the network.

Northrop Grumman agrees with most of the commenters in the D Block proceeding that the first D Block auction failed because of unbounded and untenable commercial risks that the D Block winner was being asked to assume. We believe that a successful re-auction could occur if these risks are reduced. We have suggested that Commission adopt more realistic build-out requirements (such as 95% of the U.S. population), provide more specificity on network parameters, eliminate the compounded risk of binding adjudication and potentially unavoidable "default" penalties, and remove auction minimum bid and reserve prices.

The goal of establishing mission-critical mobile broadband wireless service, however, should not be dependent on the commercial priorities of a D Block licensee. The Commission and the public safety community must be careful to resist a "something is better than nothing" mentality if that *something* falls short of this goal. To do otherwise defeats the whole purpose here.

If the shared national network does not become a reality, Northrop Grumman urges the Commission to revise its service rules to reallot the Public Safety broadband spectrum for use by local and regional public safety entities. The spectrum should continue to be preserved exclusively for public safety broadband wireless systems.

In any of these scenarios, the PSST can play an important role in managing, organizing and coordinating public safety broadband activities. It is imperative that the PSST be adequately funded and given the necessary authority to raise and borrow funds so that it may accomplish its mission. Northrop Grumman welcomes the Commission's interest in identifying and facilitating a reliable source of funding for the PSST.

I very much appreciate the opportunity to present Northrop Grumman's views on this very important matter, and I welcome any questions you may have.