

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

In the Matter of	)	
	)	
Service Rules for the 698-746, 747-762 and 777-792 MHz Bands	)	WT Docket No. 06-150
	)	
Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band	)	PS Docket No. 06-229

**COMMENTS OF RIVADA NETWORKS**

**I. INTRODUCTION**

Rivada Networks is a leading designer, integrator and operator of public safety communications and information technology networks for homeland security forces and first responders. Recognizing the increased threats from natural and man-made disasters, Rivada Networks is working with federal, state and local governments to bring reliable, secure and survivable wireless broadband capabilities to first responders.<sup>1</sup> Rivada Networks' communications and information technology solutions enable governments and their first responders to gain access to high speed data applications and services while ensuring that this capability is available when first responders need it most: during and after an emergency or catastrophic event.

Rivada Networks' innovative public safety communications solutions offer a reliable, fully interoperable and cost-effective alternative to building expensive

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<sup>1</sup> Rivada's customers include: U.S. Northern Command; FEMA; the National Guard Bureau; and the Louisiana Army National Guard.

dedicated infrastructure. Rivada Networks supplies voice and data communications solutions based on commercial cellular services backed up by, and integrated with, private deployable cellular systems. The Rivada solution uses a deployable CDMA cellular system, commercial CDMA devices, and airtime from commercial cellular carriers. During normal day-to-day operations, public safety officers can execute missions using voice and high-speed data services from commercial networks. During emergencies or other incidents, when commercial networks are unavailable or overloaded, public safety agencies can deploy the private deployable cellular system to the incident scene to provide voice and high-speed data services. Public safety officers can arrive at the incident scene and roam seamlessly onto the private network, thus providing 100% redundancy and guaranteed availability for public safety missions.

This approach can put the most up-to-date devices and applications in the hands of first responders immediately at competitive, market-driven prices. And most importantly, public safety can negotiate with multiple, well established, fully deployed network operators – gaining both network redundancies as well as the benefits of a competitive market.

This is not a theoretical approach. National Guard units in 17 states are already using a solution that deploys off-the-shelf technology to deliver high-speed voice and data services over existing commercial infrastructure. The system is capable of interconnecting a variety of handsets and public and private networks,

and includes a satellite component to handle occasions when the ground-based backhaul network is unavailable.

In short, this approach is delivering advanced, interoperable communications solutions to public safety customers *today* by making more efficient use of existing assets and commercial practices.

While Rivada understands the Commission's desire to try once again to establish a public/private partnership through its auction mechanisms, it should take certain steps to ensure that public safety is not adversely effected by the regulatory delay and uncertainty inherent in this exercise. Specifically, the Commission must ensure that: 1) public safety agencies are able to make beneficial use of the 700 MHz band pending the resolution of any future re-auction; and 2) both Federal and non-Federal agencies can access this spectrum to train for and coordinate joint responses to major public safety incidents.

## **II. THE COMMISSION SHOULD CLARIFY THAT ANY USE OF PUBLIC SAFETY SPECTRUM BY AN EVENTUAL D-BLOCK LICENSEE IS SECONDARY TO EMERGENCY DEPLOYABLE SYSTEMS.**

Rivada currently supplies various federal, state and local public safety agencies with deployable systems that reconstitute commercial capacity for first responders when the carrier's networks are down. These deployables operate in commercial spectrum and allow public safety to rely on their day-to-day commercial devices (currently BlackBerries and MotoQ's) during emergencies. While demonstrably effective (Rivada deployables were first rolled out during the Katrina

response), current generation deployables are best suited for the rare catastrophic event where the commercial infrastructure is significantly compromised. They can also provide control and priority access during lower scale events or during times of heightened threat. However, in order to deploy a Rivada system spectrum must be coordinated with the underlying commercial carrier. This is straightforward during an emergency when the networks are down, but can be operationally challenging when the networks are still up.

However, by moving the deployables to 763-768/793-798 MHz (“the public safety 700 MHz spectrum”) this solution becomes much more powerful. Under this solution, public safety agencies can subscribe to the commercial wireless broadband provider of their choice. In addition, public safety agencies can be provisioned with deployables and multi-mode handsets and end-user devices that can roam from any commercial network onto the public safety 700 MHz spectrum deployables whenever the deployables are operational. This allows public safety to access the aggregate commercial networks that serve more than 95% of the U.S. population today. In addition, public safety would have access to a network of secure, survivable deployables under their complete control, with exclusive priority access, whenever and wherever it is needed.

This solution can provide public safety agencies with all of the capabilities of the proposed D-Block public/private partnership without any of the delay or uncertainty inherent in building a new nationwide network.

However, in order for this solution to be effective these public safety deployable systems must have priority over any eventual D-Block licensee that may seek to build network infrastructure in the public safety 700 MHz spectrum. While the Commission's rules have contemplated that the D-Block licensee would have secondary access to the spectrum controlled by the Public Safety Broadband Licensee, the exact terms of that primary/secondary relationship seemed to be subject to negotiation as part of the final network sharing arrangement.

To eliminate this uncertainty the Commission should make clear – prior to any re-auction – that the D-Block licensee will have no more than secondary access to the public safety 700 MHz spectrum. That is, the D-Block licensee may not cause any interference to, and must accept any interference from, public safety deployables operating in the public safety 700 MHz spectrum. This will ensure that jurisdictions around the country can have the confidence to access this spectrum as soon as it is available in February 2009, without waiting for an uncertain D-Block partner and without the fear of future interference.

### **III. THE COMMISSION SHOULD MODIFY SECTION 2.103 TO ENSURE THAT FEDERAL FIRST RESPONDERS CAN INTEROPERATE WITH STATE AND LOCAL AGENCIES IN DISASTER RESPONSE**

Under Section 2.103 of the Commission's rules Federal agencies may deploy systems in the public safety 700 MHz spectrum if: "1) the [systems] are used for interoperability or part of a Federal/non-Federal shared or joint-use system; 2) The Federal entity obtains the approval of the non-Federal (State/local government)

licensee(s) or applicant(s) involved; (3) Federal operation is in accordance with the Commission's Rules governing operation of this band and conforms with any conditions agreed upon by the Commission and NTIA; and (4) Interoperability, shared or joint-use systems are the subject of a mutual agreement between the Federal and non-Federal entities.”<sup>2</sup>

Irrespective of whether the Commission goes forward with a public/private partnership through its auction process, the Commission should streamline Section 2.103 to allow the most efficient and effective access of the public safety 700 MHz spectrum for Federal agencies that may be called upon to respond in the event of an emergency and coordinate with non-Federal state and local agencies. So long as there is “mutual agreement between the Federal and non-Federal entities” and that agreement includes coordination procedures to protect against interference, Federal use of this spectrum should be presumptively allowed.

As adequately demonstrated and well documented elsewhere, Hurricanes Katrina and Rita, as well as the events of 9/11, make clear that effective response to a large scale disaster requires the coordinated efforts of Federal and non-Federal public safety agencies. Indeed, in recognition of this fact the final report of the Commission on the National Guard and Reserves made the following recommendation.

“Congress should codify the Department of Defense’s responsibility to provide support for civil authorities. This statutory language should include the acknowledgment that responding to natural and man-made disasters in the

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<sup>2</sup> See 47 C.F.R. Section 2.103.

homeland is a core competency of DOD, of equal importance to its combat responsibilities. Congress should also clearly state that DOD should be prepared to provide the bulk of the response to a major catastrophe that incapacitates civilian government over a substantial geographic area and that DOD should initiate the necessary planning, training, and coordination for such events.”<sup>33</sup>

This coordinated effort will be greatly advanced if Federal agencies such as the National Guard can employ communications capabilities that are inherently interoperable, from a spectrum standpoint, with their non-Federal partners.

#### IV. CONCLUSION

Providing our nation’s first responders with advanced wireless capabilities should be a national priority. While the Commission is to be commended for attempting to solve this problem through the mechanisms available to it as a regulatory agency, it must ensure that these efforts do not unintentionally create barriers to the efforts being undertaken by others. By adopting the limited proposals outlined above, the Commission can continue its efforts to create a viable public private/partnership while ensuring that public safety agencies are not adversely effected by the delay and uncertainty inherent in this exercise.

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<sup>33</sup> See Final Report: Commission on the National Guard and Reserves, January 31, 2008, Exec. Summary at 22.

Respectfully Submitted,

Rivada Networks

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