

**Testimony  
Of  
Mark L. Tucker  
CEO CoCo Communications Corporation**

**Before the  
United States House of Representatives  
Committee on Energy and Commerce  
Subcommittee on Telecommunications And The Internet**

**Hearing on the "Oversight of the National Telecommunications Information  
Administration and Innovations in Interoperability."**

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## **I. Introduction**

Good morning, Chairman Markey, Ranking Member Upton and Members of the Subcommittee. My name is Mark Tucker. I am the CEO of CoCo Communications Corporation. Over the last 5 years I have had the privilege of leading the efforts at CoCo Communications, which is at the forefront of technological development and pioneering an operational commercial service focused on solving the very difficult problem of achieving interoperability for the nations first responders. I know the problem intimately and have analyzed it from many angles; operationally, technologically, economically, socially and practically. Thank you for the opportunity to testify today on this important topic and giving me the chance to share some of these insights with you.

Today this Subcommittee has an opportunity to have an impact on a serious public policy issue facing our country. The country is at an inflection point, where the public policy process can help drive innovative solutions so that the emergency response community can have access to and leverage the latest advances in technology – that exist today.

Communications interoperability is not a spectrum issue. It is not a technology issue. And it is not an infrastructure replacement issue. With these barriers down, it is now fundamentally a leadership issue. This Subcommittee, by providing the policy direction necessary to structure the new Public Safety Interoperable Communications Program (PSIC) can serve as a catalyst that will accelerate the projected timeline for solving the problem.

Taking action now will help the country meet the urgent requirement for a national solution. One that is always on. One that is affordable by all agencies. And one that is emergency and disaster ready. This approach will establish the adoption of complimentary innovative communications solutions.

## **II. Background**

Interoperability has existed for decades and will require continual improvement as best practices and technology evolve. Post 9/11, the problem gained worldwide attention and became a national security focus. It is now a requirement to have multi-agency coordinated response capabilities, which are critical to the war on terror as well as responding to natural disasters. The mission scope of emergency responders has expanded tremendously to meet these new challenges. Collaboration between agencies and groups on a local, state and federal level has become an important responsibility for each individual as part of the new Homeland Security chain of command.

## **III. The Interoperability Problem**

To meet these post 9/11 requirements, local, state, federal agencies and critical infrastructure providers such as health, utilities and transportation must be able to communicate together more efficiently on a day-to-day, incident and major disaster basis. The main obstacle to this becoming a reality anytime soon lies in their standard method of communication, the land mobile radio. The land mobile radio system was originally designed to meet a specific responder team or agencies' internal voice communication needs and was only intended for inter-group communications and specifically not designed to support intra-group or multi-agency communications. This has led to each responder group or agency procuring and operating their own land mobile radio system to meet their internal voice communication needs.

Over the course of many years, thousands of land mobile radio systems have been built across the country with each one fulfilling a specific agency's voice communication requirement in a limited geographic area of operation. The result is many separate systems with limited coverage areas utilizing different frequencies. To compound the problem further, the systems were built using closed proprietary hardware technology and the industry became monopolized by one dominant player, Motorola, who is estimated at having over 80% market share. Motorola has used their market dominance to perpetuate this owner / operator / obsolescence business model which requires every town, city,

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county, state and federal agency, utility and transportation provider to build and operate their own infrastructure network. This results in extremely high capital expenditure costs and operational support until the life of the network is depleted and the whole process starts over. This business model has resulted in the state of public safety communications today- where hundreds of billions of dollars have been invested in thousands of land mobile radio systems that were not designed to support multi-agency collaboration on a local, regional or national scale.

#### **IV. What Is Needed**

The need for improved public safety communications is clear. Regardless of the form the solution takes one thing is certain: the fix will require leadership from all levels of government. This includes the executive and legislative branches, governors, state emergency management leaders, mayors, county executives, police and fire chiefs in every jurisdiction across the country. Leadership drives innovation and makes overcoming challenges possible. When a solution exists, vision and encouragement is often the only missing ingredient.

#### **V. The Solution is a Subscription Service**

One proven solution to this problem is a secure overlay software technology that enables a Subscription Service model by creating a network of networks. This approach allows legacy and new networks to work together in a secure, synchronized, and controlled manner. This methodology is similar to how telecommunications systems and the Internet allow us to connect to one another. The requirements to do this are more challenging than what the Internet Protocol can support which is why the CoCo Protocol was created. The CoCo Protocol is a next generation cryptographic overlay mesh protocol that connects devices and networks together in a secure way controlling the traffic between various underlying networks that is self healing if any piece fails and is optimized for the mobile environment.

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The Subscription Service model will maximize the billions of dollars already invested in existing land mobile radio systems by connecting them all together to form a single interoperable network that is accessible for a small monthly fee. A national network built out of the sum of the parts will still allow each local, state and federal group to decide what type of communications requirement best meets their own internal mission needs while ensuring that the common goal of interoperability to support coordinated multi-agency response is achieved.

## **VI. National Interoperability Service Model**

Through DHS grant funding and the support of NTIA, this concept has become a reality and the country's first National Interoperability Subscription Service is operational in Texas and expanding. Subscribers use their existing land mobile radio equipment to communicate with each other and pay a small monthly fee. In addition to securely tying together the radio systems, the service leverages our national telecommunications assets and provides responders with the ability to also access live video and securely share data. No infrastructure needed to be replaced nor was any new spectrum required. Network expansion is scheduled to begin this summer in two additional major metropolitan areas.

## **VII. Conclusion**

This Subcommittee and the formation of the PSIC Program represent an opportunity to accelerate the pace for solving an important national problem. Innovation combined with leadership will continue to be the cornerstone principal that has allowed our country to solve complex challenges. We look forward to a continued dialogue on this important national issue.

Thank you, I welcome your questions.