



November 27, 2001

Ms. Magalie Roman Salas, Secretary  
Federal Communications Commission  
The Portals, TW-A325  
445 12<sup>th</sup> Street, S.W.  
Washington, D.C. 20554

Re: Ex Parte Notification – WT Docket No. 00-32

Dear Ms. Salas:

This letter is being filed on behalf Motorola, Inc. On November 15, 2001, Randy Ekl [insert title], and John Lyons, Director, Telecommunications Strategy and Regulation, presented a demonstration of the type of wireless telecommunication application that 4.9 GHz technologies would make available to public safety agencies. Also present with the Motorola representatives were Michael Lewis and Thomas Dombrowsky of the firm of Wiley, Rein, and Fielding. Over the course of a four hour period, the following Commission employees stopped by to view the demonstration: Peter Tenhula; Bryan Tramont; Monica DeSai; Paul Margie; Bruce Franca; Ted Ryder; Alan Stillwell; Bob Bromery; Bruce Romano; Bob Eckart; Herb Zeiler; Roberto Mussenden; Salomon Satche; John Schauble; and Genevieve Augustin

The Motorola demonstration used spectrum at 2.4 GHz to support a video application that is illustrative of the type of public safety application that manufacturers might be expected to market at 4.9 GHz. Because spectrum at 4.9 GHz has not been yet allocated for public safety, no manufacturer has developed public safety products for those frequencies. While there are numerous potential applications, which have been identified by both manufacturers and public safety agencies, they exist today on paper only. These include full motion real-time video, wireless high speed data networks, high speed data transmissions of very large files at specified locations (hot spots), short range wireless networking of radios and accessories on an officer or within a vehicle.

A handout that described the demonstration was provided to attendees. A copy is enclosed.

Please contact John Lyons at (202) 371-6936 regarding any questions concerning this matter.

Respectfully Submitted,

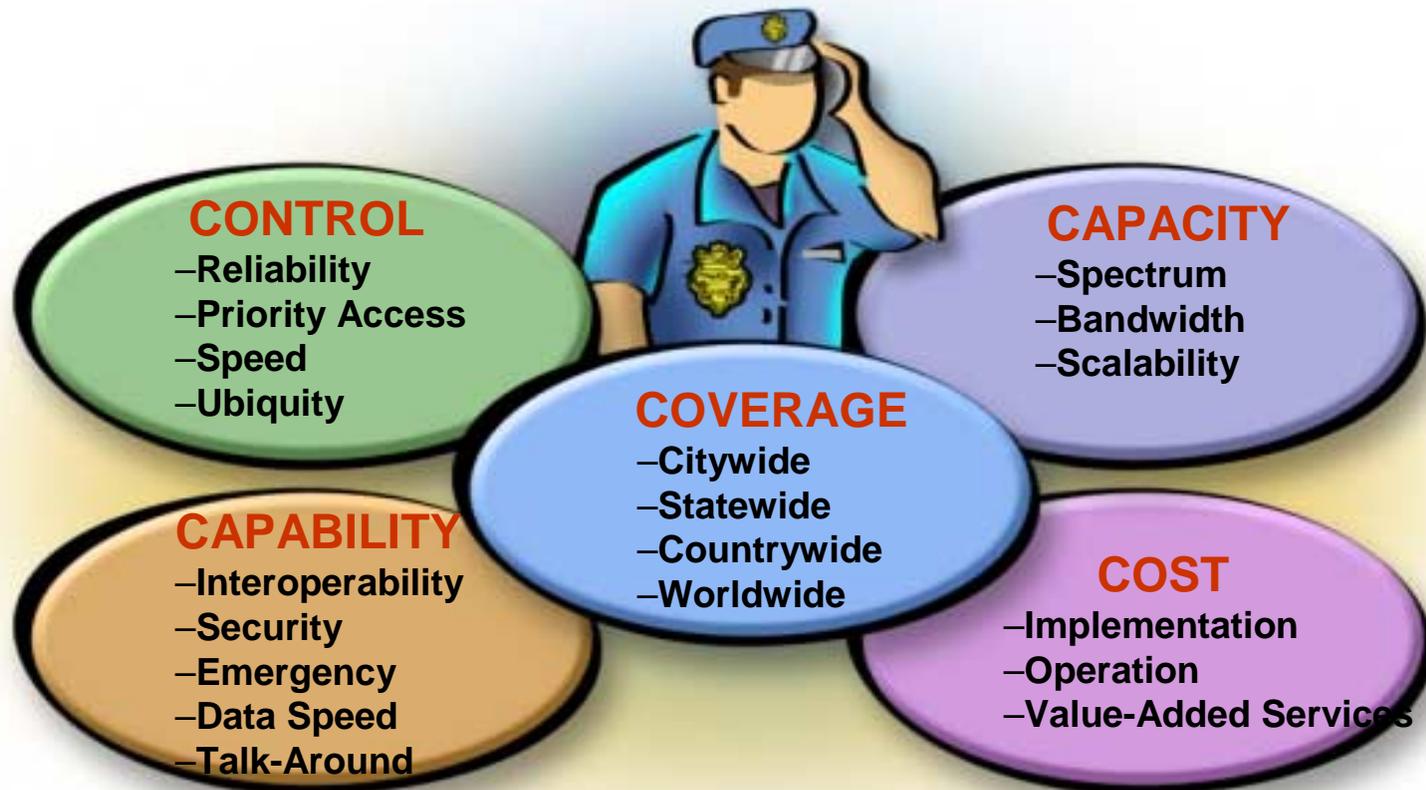
*John Lyons*

John Lyons  
Motorola, Inc.

# Mission Critical Broadband

**Technology Demonstration  
Federal Communications Commission  
November 15, 2001**

# Mission Critical Communication and Information Solutions Must Address Key Requirements (5C's )



# Evolving Operational Requirements

## Traditional Needs

- ✓ Priority Access
- ✓ **Fast Access Group Calling**
- ✓ Call Center Support
- ✓ Basic data & messaging
- ✓ Crypto for voice & data
- ✓ Scalable capacity
- ✓ Cost effectiveness for private users
- ✓ Integrated mission critical voice & data networks
- ✓ Future proof



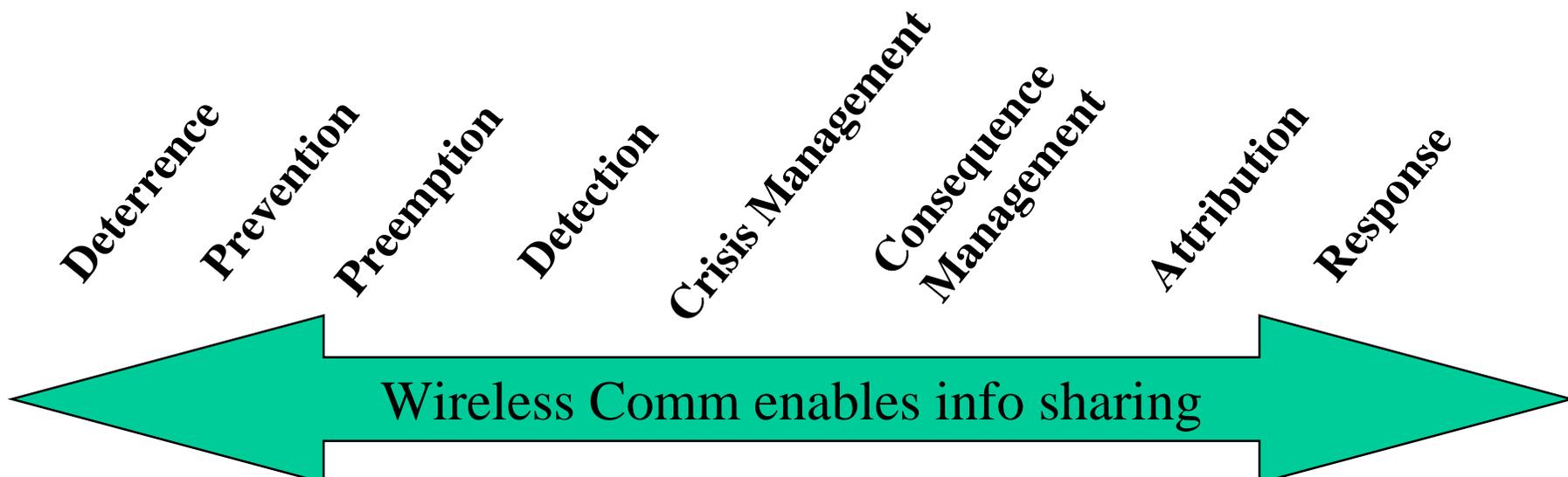
## Emerging Needs

- **Mobile office support**
- Personal Area Network
- High Speed file transfer
- Images - high resolution
- Video - high resolution
- Advanced browsers & agents
- Advanced speech based email
- Integrated mission critical voice & data applications
- Telematics for public safety



# Recent Learnings

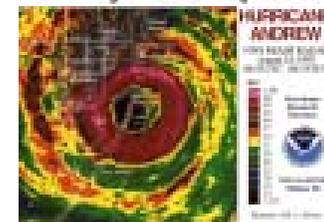
- 5 C's Communications will continue to be vital
- Information will increase in importance
  - Sharing gap must be addressed
  - Capture, diagnose, disseminate
- 700 MHz Wideband and 4.9 GHz Broadband Spectrum can enable sharing of information, especially the "internet/intranet" format info



# Local Broadband

Users tell us they want to do this:

- Transmission of video from firefighter in a building
- Transmission of video from police helicopter to local units
- Transmission of video from a HazMat robot
- Uploads of video cached in car....for evidence
- Firefighter earpiece to hear “get out now”
- Bio-signs of officer sent to street command center
- Downloads of maps and building layouts to mobile laptop
- Downloads of wanted or missing persons’ images
- Downloads of video clips of robbery
- Software upgrades



# Local Broadband Networks - 3 Types

*Wireless Personal Area Networks (WPAN),  
Hot Spots, Vehicular Area Networks (WVAN)*

4.9 GHz



**WPAN**

Access point



**Hot Spots**

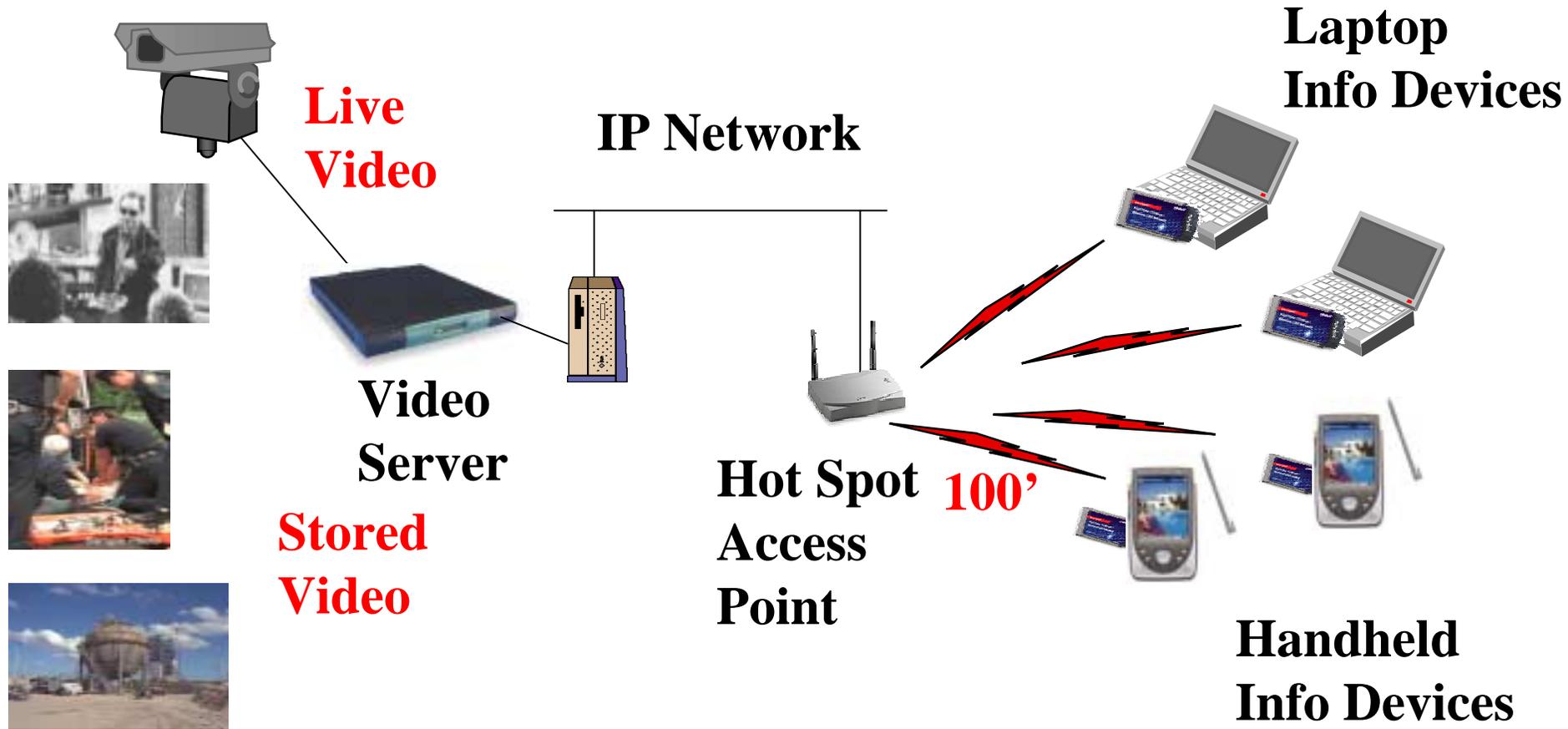
4.9 GHz



**WVAN**

- Create an ad-hoc wireless network around the person or vehicle
- Enable wearable and data-centric devices
- Voice, data, images, biometric info
- Leverage 5GHz industry technology to lower costs
- Immediate access to field situation, unit information, logistics information

# Local Broadband Demo Today



KATHRYN NAULWES  
DOB: 14-jan-1992  
Missing: 01-apr-1995  
Sex: F  
Hair: Blonde  
Eyes: Brown  
Height: 3' 0" - 31cm  
Weight: 40 lbs - 16 kg  
Missing From:  
EARLHAM  
IA  
USA  
Age Now: 8 years



## **Local Broadband Summary**

- **Dedicated spectrum for mission critical continues to be essential (5 C's)**
- **Mission critical community wants to share more info and communicate more often**
- **Broadband will enable more applications of instant info sharing in localized areas**
- **Preliminary technology work indicates a good fit**
- **Real momentum on technology and product awaits FCC decision allocating 4.9 GHz spectrum to Public safety**