

# Emergency Communications

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# Motivation for Emergency Communications

- Emergencies and Disasters are unpredictable in regards to timing, locality and intensity
  - **Hurricanes**
    - Model path, size and intensity
    - Regional affect
    - Devastation depends on preparation and response
  - **Terrorist Attacks**
    - When and Where? How good is intelligence
    - Intensity?
- Who responds?
- Who is responsible?
- How is knowledge transferred?

# Motivation (cont'd)

- Recent events have shown the lack of communication that exists between agencies
  - **Impacts:**
    - Emergency responders
    - Public Health
    - National and economic security
    - Ability for the government to maintain order and perform essential functions
- In 2008 DHS developed the National Emergency Communications Plan (NECP) aimed at improving communication channels between federal, state and local agencies during emergencies

# Current Efforts

- NECP is a 5-year plan to
  - **Ensure**
    - The federal government, states and organizations can all communicate.
    - Each state has an independent communication plan.
  - **Specify**
    - Guidelines for state and local government interoperability.
    - A timeline and milestones for implementation.
- 700-800 MHz frequency for communications
  - **Band range was used for analog TV**
  - **Common medium for communications**
  - **Can the same model for data networks be implemented?**
    - Would allow for instant networks
    - Information systems could be standardized and implemented on such a medium

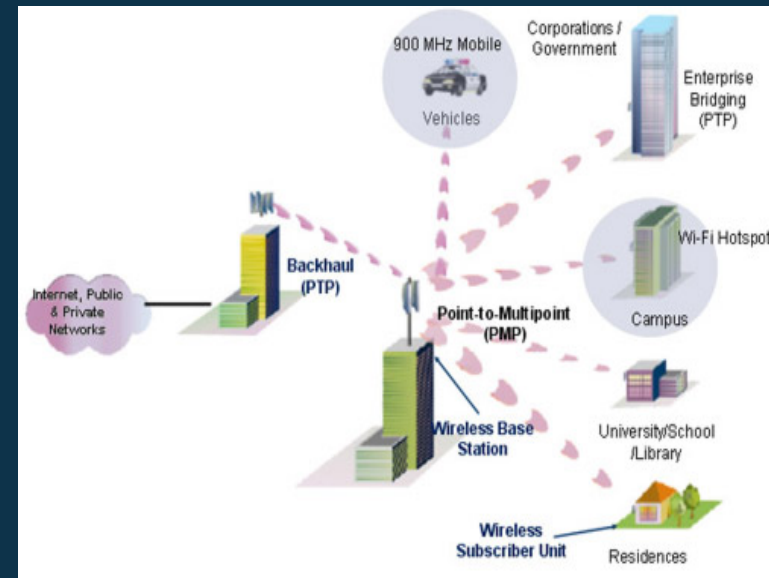
# Possible Solutions

- Wireless Technology

- WiMax
- WiFi
- RF Devices
- Cellphones

- Common Databases

- Criminal
- Common or Shared Schemas



# Challenges

- Defining standards
  - Medium
  - Application / System interoperability
  - Data Sharing / Data Secrecy
- Security
- Planning
- Implementation / Cost



Hackers Crack Into Texas Road Sign, Warn of Zombies Ahead

<http://www.foxnews.com/story/0,2933,484326,00.html>

# References

- National Emergency Communications Plan (NECP)
  - [http://www.dhs.gov/xlibrary/assets/national\\_emergency\\_communications\\_plan.pdf](http://www.dhs.gov/xlibrary/assets/national_emergency_communications_plan.pdf)
- Statewide Interoperability Planning Guidebook
  - <http://www.safecomprogram.gov/NR/rdonlyres/18F02413-CC4D-41B2-9097-F5FF04E080C7/0/StatewidePlanningGuidebookFINAL.pdf>