

## **Joint Advisory Committee on Communications Capabilities of Emergency Medical and Public Health Care Facilities**

In Section 2001(c) of the Implementing Recommendations of the 9/11 Commission Act, Congress directed the FCC and NTIA To create The Joint Advisory Committee on Communications Capabilities of Emergency Medical and Public Health Care Facilities (JAC) to examine the communications capabilities and needs of emergency medical and public health care facilities.

Specifically, the Joint Advisory Committee is charged with assessing:

1. Specific communications capabilities and needs of emergency medical and public health care facilities, including the improvement of basic voice, data, and broadband capabilities;
2. Options to accommodate growth of basic and emerging communications services used by emergency medical and public health care facilities; and
3. Options to improve integration of communications systems used by emergency medical and public health care facilities with existing or future emergency communications networks.

The JAC, comprised of 24 representatives of the public and private sectors, conducted several public meetings between October 2007 and January 2008, and delivered a final report to Congress on February 4, 2008. The 80 page report includes an assessment of the current state of communications in emergency medical and public health care facilities and a "Digital Diagnosis" for where communications "needs to be." Using these as a basis, the JAC made eight major recommendations, with specific initiatives listed under each recommendation.

During its June and October meetings, the 9-1-1/Medical Communications Committee of FICEMS reviewed the JAC report, recommendations and specific initiatives, for potential actions that could be taken by FICEMS and/or the committee. The result of this review is the presentation of one specific initiative and one major recommendation to the TWG for consideration. They are:

### **Recommendation 1F**

Improve funding for EMS providers. The JAC agrees with conference report language accompanying the Homeland Security Appropriations Bills for the past two years recommending that no less than ten percent of State Homeland Security Grants and the High Threat, High Density Urban Area Grants go to EMS providers. Adequate funding can help better train and equip responders to provide critical life-saving assistance which is to include interoperable communications for emergency medical and health care providers.

**Recommendation 3**

The Committee recommends the federal government renew its commitment to develop, harmonize, and ensure widespread adoption of shared standards and protocols.

The Committee recommends federal and state agencies develop common criteria for all contracts and grants supporting emergency communications.

The 9-1-1/Medical Communications committee submits these recommendations to the TWG for discussion to identify potential actions to be taken by FICEMS and/or the TWG in support of the recommendations made by JAC.

**Attachments:**

FCC JAC Report – Executive Summary  
Members of the JAC



## JOINT ADVISORY COMMITTEE ON COMMUNICATIONS CAPABILITIES OF EMERGENCY MEDICAL AND PUBLIC HEALTH CARE FACILITIES

### Executive Summary

In recent years, large-scale emergencies have exposed communications failures in our EMS and health care systems. Disaster events not only have overwhelmed emergency response communications capacity, they have uncovered emergency medical and hospital communications systems that are antiquated and unable to harness the benefits of modern communications technologies.

The communications technologies upon which life-saving decisions depend are often outdated, fragile, limited only to voice, and woefully inadequate to respond to a mass casualty or disaster event. Too often today, EMS responders, doctors, and nurses must practice 21st century medicine with 20th century communications technology. Modern broadband communications networks and applications present an enormous opportunity to radically improve the manner in which emergency information is shared by health officials. Broadband services enable bandwidth-intensive information such as video, pictures, and graphics to be transmitted faster and in a more-reliable and secure manner. When married with wireless technology, broadband enables the real-time, reliable transmission of bandwidth-intensive information in a mobile environment.

By taking advantage of modern communications technologies, we can begin laying the foundation for a mobile, digitally connected health care system. And by extending broadband to every American, we can further extend the benefits of modern health care through telemedicine, remote monitoring, and telecommuting.

The Joint Advisory Committee on Communications Capabilities of Emergency Medical and Public Health Care Facilities (JAC) is recommending a systematic, coordinated, and comprehensive strategy to improve emergency communications throughout the ranks of first responders and public health facilities. The strategy encompasses all components in the chain of emergency response – spanning receipt of a 911 call, EMS dispatch, onsite communications, transport communications, hospital communications, interagency communications and coordination, treatment of victims, and identification of outbreaks.

By transitioning to broadband networks, emergency communications systems can:

- o Enable voice and data convergence
- o Facilitate the transmission of real-time video, pictures, and graphics in a mobile environment to create virtual emergency rooms at the scene of accidents, in the wake of disasters, as well as en route to hospitals.
- o Bridge silos that isolate relevant data
- o Make communications more redundant and resilient
- o Maximize the efficiency and reliability of packet routing
- o Ensure better surge capacity and traffic prioritization
- o Enable backwards compatibility with legacy systems
- o Increase the ability to use off-the-shelf technologies

The JAC looked comprehensively at the nation's current communications capabilities across the continuum of emergency medical and public health communications. It found that we are asking 911 call takers, EMS responders, and public health services to do some of the most important jobs in the country, yet they are using technologies that the private sector has largely moved beyond.

This lack of modern communications capabilities for emergency medical and public health personnel not only limits their ability to save lives and save money – but it limits communications with patients, their families and their other health experts. It means that the productivity improvements driven by IP networks and IT investments can be seen almost everywhere throughout our economy – except in EMS, hospitals, and other public health facilities.

To address the shortcomings in our emergency medical and public health communications systems, the JAC recommends that the United States:

- o Foster interoperable broadband networks, both wireline and wireless, that permit critical health-related information to be transmitted rapidly, reliably, and securely.
- o Improve interoperability through better interagency coordination and the use of common protocols.
- o Use mobile broadband services and applications to create virtual hospitals at the scene of accidents, and disasters.
- o Advance life-saving capabilities such as telemedicine, remote monitoring, and telecommuting by encouraging network and application innovation and deployment.

***To advance these goals, the Committee recommends:***

1. *Policymakers encourage the deployment of interoperable, standards-based broadband networks built on common and standardized Internet Protocols that can transmit bandwidth-intensive information such as video and graphics in a rapid, reliable, and secure manner.*
2. *Congress establish a federal interagency coordinating committee on emergency communications systems to establish strong, consistent national (federal) guidance, standards and direction to insure consistent development of compatible communication systems across the nation.*
3. *The federal government renew its commitment to develop, harmonize, and ensure widespread adoption of shared standards and protocols.*
4. *Federal and state agencies develop common criteria for all contracts and grants supporting emergency communications.*
5. *Greater coordination, investment, and utilization of telemedicine technologies for both day-to-day and emergency response.*
6. *Better coordination between existing systems to be able to share and analyze real-time data across systems and provide better communications during times of emergency.*
7. *The Department of Homeland Security lead an effort to create and coordinate a geospatial Command and Coordination System, based on open enterprise architecture, to allow common patient and emergency vehicle tracking for better situational awareness for all Emergency Medical and Public Health Care Facilities.*
8. *First responders, health care personnel, and patients have ubiquitous access to broadband services and applications by fostering a regulatory environment*

*in which private sector companies build robust broadband networks and providing targeted funding.*

By harnessing the power of modern communications technology and infrastructure, the United States can enable modern medicine to be utilized more effectively outside of hospitals. Robust broadband networks can route emergency-related communications traffic rapidly, securely, and reliably, and ensure that patient information is available in remote locations.

The communications capabilities of our nation's emergency medical and health care systems need a radical overhaul. But with the proper focus and the commitment of both the public and private sectors, the United States can marry 21<sup>st</sup> century medicine with 21<sup>st</sup> century communications capabilities.

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