

## **NRIC Council Meeting**

Focus Group 1D

**Recommended Network Architectures  
and Properties for Emergency  
Communications (PSAPs and  
Emergency Services)**

December 6, 2004

# Focus Group 1D Charter

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*“The Council shall present a report describing the properties that network architectures for communications between PSAPs and emergency services personnel must meet as soon as possible [by the year 2010]. These recommendations shall include the access requirements and service needs for emergency communications in the near future [year 2010].”*



Network Reliability and Interoperability Council VII

# Focus Group Structure and Report Process

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- *Structured as a Committee of the Whole*
- *30+ members representing 25 organizations*
- *Ad hoc subgroups formed to develop drafts on several issues*
- *Met in person three times and by conference call numerous times*
- *New draft circulated each time*
- *Focus Group list serv established; large amount of email communications*
- *Consensus decision making process*
- *Special outreach to key leaders of affected emergency groups*

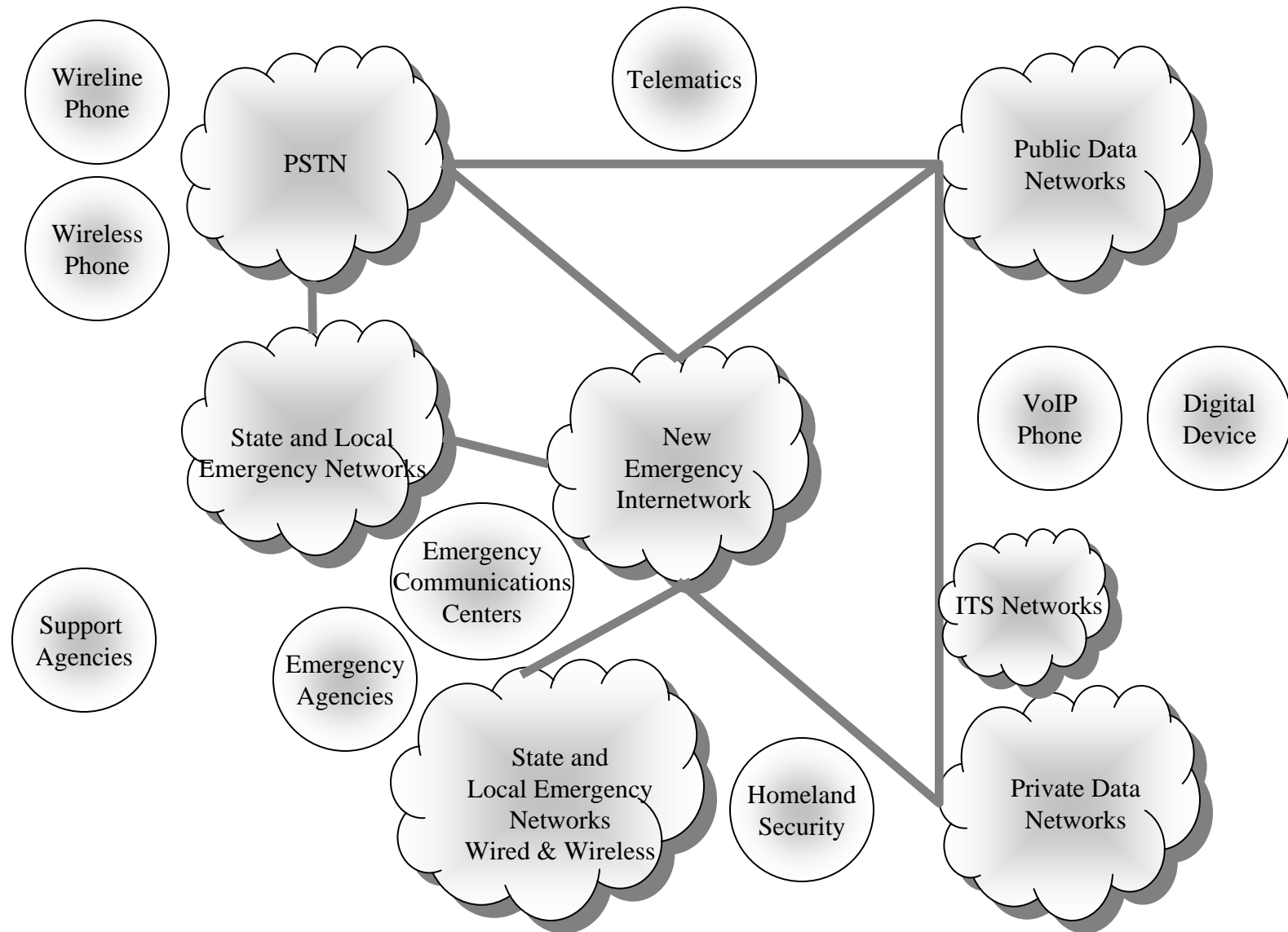
# Results in Brief

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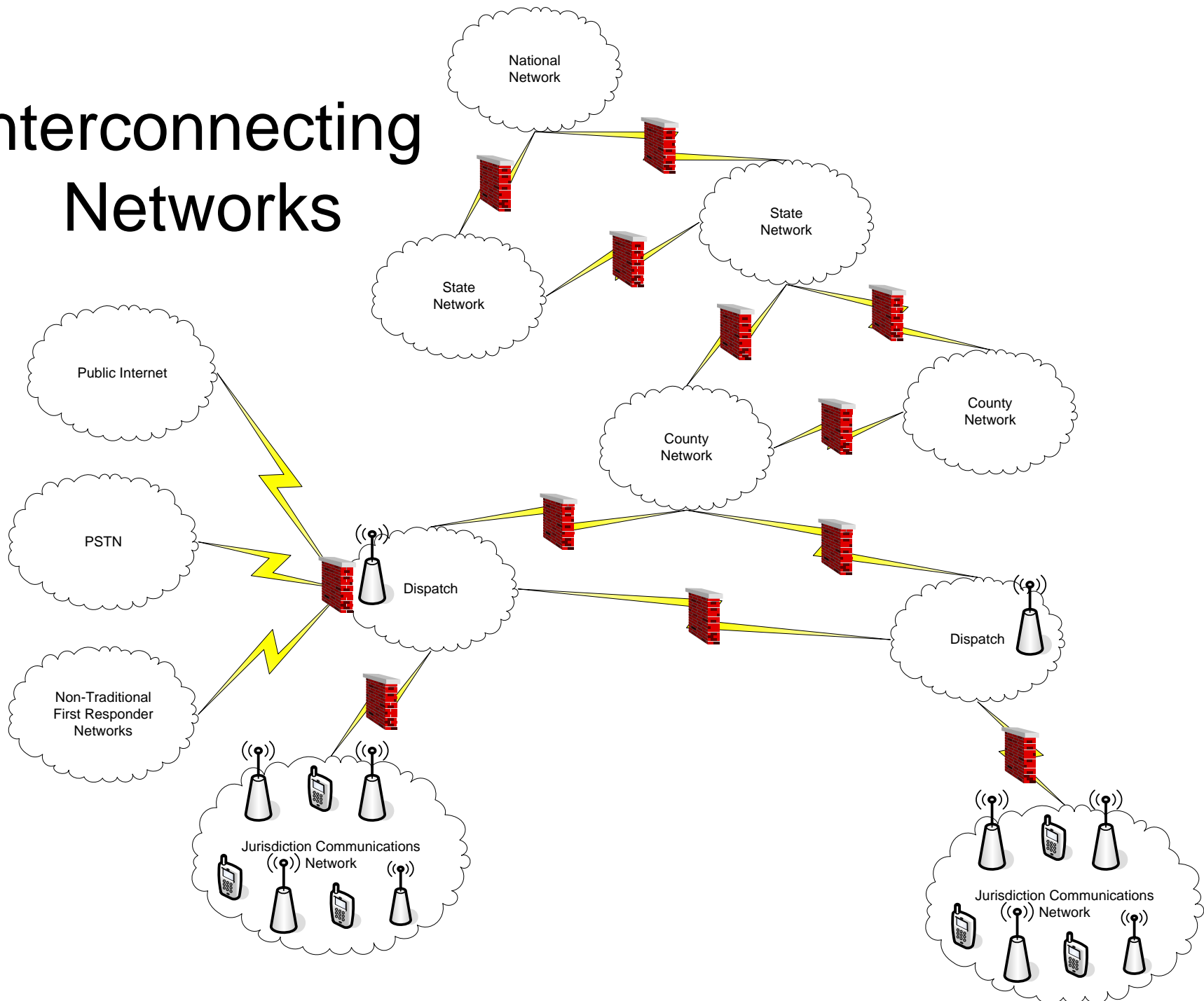
Our findings show that long before target date of 2010:

- *A ubiquitous Internet Protocol “Internetnetwork” must be deployed, linking existing and new networks, devices, applications*
- *This will be a common transport platform, replacing today’s separate ones*
- *A series of common data standards must be developed*
- *A number of supporting and shared technologies and services must be developed to enable and manage this internetnetwork and its parts*
- *Agencies must have access to modern, standards based applications to manage emergency data*
- *Interagency, intergovernmental and public/private processes and institutions need to be established to accomplish the above and to make the rules for the internetnetwork*

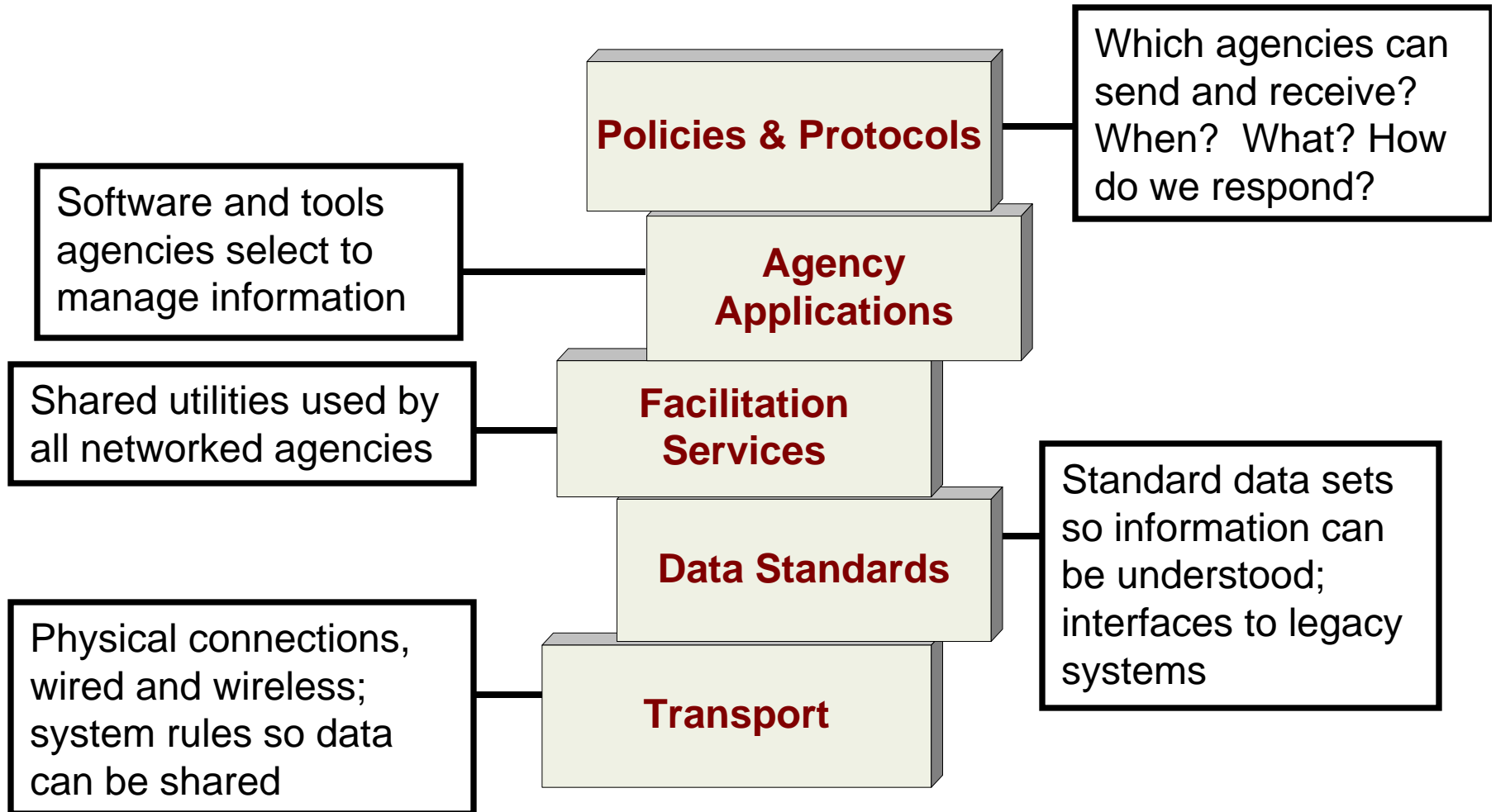
# Future Internetwork



# Interconnecting Networks



# Layers of Emergency Communications



**Summary of Recommendations – *Category #1***

Follow the Internet model – except for security: IP, open architecture, standards-based, flexible

All hazards, all agencies, all emergency uses, all devices, all emergency networks

Conduct more research on best air interfaces for packet voice and data

National standards, developed by all affected stakeholders, will enhance local choice in applications and uses; owner controls data

Focus on building interfaces from legacy systems to the standardized internet network tools

See full report for all recommendations



## *Recommendations -- Category #2 Exchanging Information*

### **Summary of Recommendations – Category #2**

Accommodate all disciplines and wide array of access methods; agnostic to message content

Focus on connecting organizations, not individuals

All agencies need broad band connections; many need redundant ones

Promote high degree of security in multiple ways

Transport should not determine nor limit policy choices; develop tools and processes for those

See full report for all recommendations

**Summary of Recommendations – Category #3**

No more silos; implement systems that are multi-agency, multi-use – not purpose built

Adopt web services technology for dynamic information access

Launch all-discipline, rapid standards development project

Give agencies ability to control access to their information

Implement national shared facilitation services: e.g. routing registry, authorization (rights) system, and

Establish institutions to create those policies

See full report for all recommendations

## *Recommendations -- Category #4 Homeland Security*

### **Summary of Recommendations – Category #4**

Central nervous system of National Incident Management System (NIMS), NRP and ICS

HS is best served by excellent and integrated day to day system, from which it can extract data

Federal Government must ensure basic emergency messaging system and data interoperability among all emergency agencies

- broad band connections, secure two way data
- shared GIS; shared utilities like routing directory, authorization/rights system, and authentication
- set of emergency messages

See full report for all recommendations

# Next Steps

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- Detail rapid implementation plan for initial steps (6 months to two years)
- Develop strategies for ensuring new benefits reach smallest and rural communities
- Develop medium term and longer term plans
- Develop business case for recommended changes