

December 2003









# **TABLE OF CONTENTS**

| Ir | ıtr | od | 11 | cti      | ion | 5      |
|----|-----|----|----|----------|-----|--------|
|    |     |    |    | <b>.</b> | I   | <br>., |

Executive Summary ... 7

Key Initiatives ... 9

Vision: Purposes & Intentions ... 13

Call to Action ... 17

Appendix





# **INTRODUCTION**

Thank you for participating in the first SAFECOM/AGILE Joint Program Planning Meeting in San Diego, CA held on December 2 - 4, 2003. This planning session brought together, for the first time, public safety practitioners and key stakeholders from the local, state, and federal level to provide recommendations for the most significant and necessary initiatives to improve public safety communications and interoperability. SAFECOM and AGILE are practitioner driven programs, dedicated to representing and serving the needs of the public safety community. The diverse perspectives represented, in addition to the willing participation and the collaborative attitude of all those present, made this meeting a great success. We thank each of you who contributed to this accomplishment for your time, effort, and ideas.

The desired outcomes of the meeting included a commitment to a common strategy, recommendations for a detailed project plan that supports the strategy, and an understanding of the resources available from everyone in the room and how we can make best use of them. Your input and insights into the needs of public safety provided a valuable contribution towards the development of a national strategy for public safety communications and interoperability.

As a result of your three days of hard work, we now have an action plan that SAFECOM and AGILE are committed to implement over the next eighteen months, within available resources. This plan, once implemented, will help to assure a safer America through more effective public safety communications.

Attached is a report of the results of the SAFECOM/AGILE Joint Program Planning Meeting. The success of the initiatives and goals that we as a community agreed to for the next eighteen months, five years, and twenty years, is dependent upon your continued commitment and the leveraging of work that many of you have already begun.

Thank you for making the Joint Program Planning Meeting an extraordinary success and we look forward to your continued participation in improving public safety communications and interoperability.

David G. Boyd, PhD

Director

**SAFECOM Program** 

Thomas P. Coty

Thomas P. City

Senior Program Manager

**AGILE Program** 



# "We are bringing all of the players together, people who have been marginally aware or unaware of one another's activity."

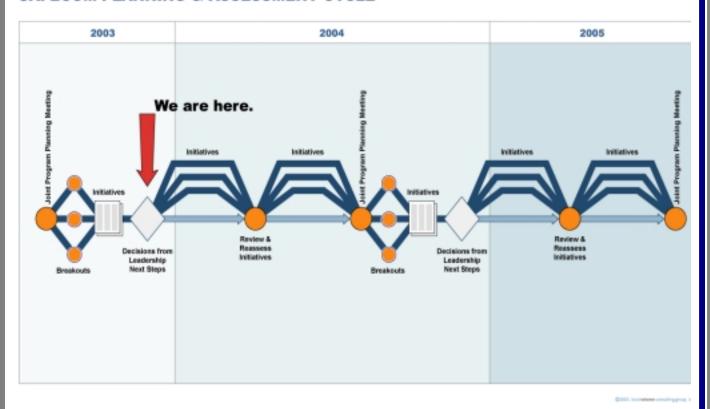


# **EXECUTIVE SUMMARY**

The SAFECOM/AGILE Joint Program Planning Meeting brought together a diverse group of local, state, and federal public safety representatives to review and refine a national strategy for improving public safety communications and interoperability. Each of the major public safety associations were represented as well as the key federal programs working on the interoperability issue, including the Office of Community Oriented Policing Services (COPS), the Federal Emergency Management Agency (FEMA), and the Office for Domestic Preparedness (ODP).

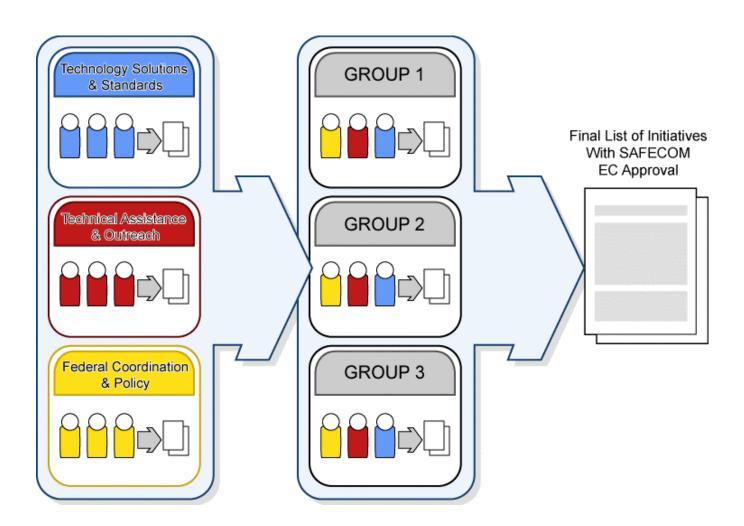
The SAFECOM and AGILE programs view the effort to improve public safety communications and interoperability as continuous and participatory. As the graphic below illustrates, the joint meeting held on December 2 – 4, 2003 was the first of a bi-annual process of strategic development and review. This process will require the combined and sustained efforts of all those involved in the planning meeting to reach the common goal – a world where no lives or property are lost unnecessarily because public safety agencies cannot communicate.

#### SAFECOM PLANNING & ASSESSMENT CYCLE





# "A sense of community and crosspollination is growing"



Topic-specific groups met to brainstorm initiatives for the SAFECOM and AGILE programs. After a breakout and discussion, participants were divided into three new groups of mixed representation to detail and prioritize the suggestions. The outputs of these sessions were compiled to derive a comprehensive set of initiatives that were recommended to SAFECOM and AGILE leadership.



# **KEY INITIATIVES**

# To significantly improve public safety communications and interoperability by July 2005, the SAFECOM and AGILE leadership have committed to the following:

- ♦ Create a baseline of public safety communications and interoperability across the country. A mechanism will be established to assess the current state of interoperability across the nation. This will be the basis for measuring future improvements made through local, state, and federal public safety communications initiatives. To accomplish this, we will define the optimal metrics, assess previous studies into the state of interoperability, conduct a gap analysis, and launch and support a project team to conduct the baseline assessment.
- ♦ **Complete the comprehensive Public Safety Statement of Requirements (SoR).** The SoR defines the functional requirements for public safety practitioners to communicate and share information when it is needed, where it is needed, and when authorized. To accomplish this, we will complete Version 1.0 of the SoR in partnership with public safety.
- ♦ Create a one-stop shop for public safety communications and interoperability. A national public safety wireless communications portal will be developed to provide planning and management applications, collaborative tools, and relevant and timely wireless information to the public safety community. The first step in delivering this one-stop-shop will be to build a prototype combining a limited number of existing applications, tools, and sites. A toll-free telephone number will be established to provide technical assistance and other information to the practitioner community.
- ♦ Integrate coordinated grant guidance across all grant making agencies.

  Coordinated grant guidance provides criteria to avert the creation of public safety communications systems stovepipes at the local and state levels. To integrate grant guidance, we will work with the Federal Interagency Coordination Council (FICC) to ensure that federal money is spent to promote a consistent vision of interoperability.



# "We need to put egos aside and look to others for resources"

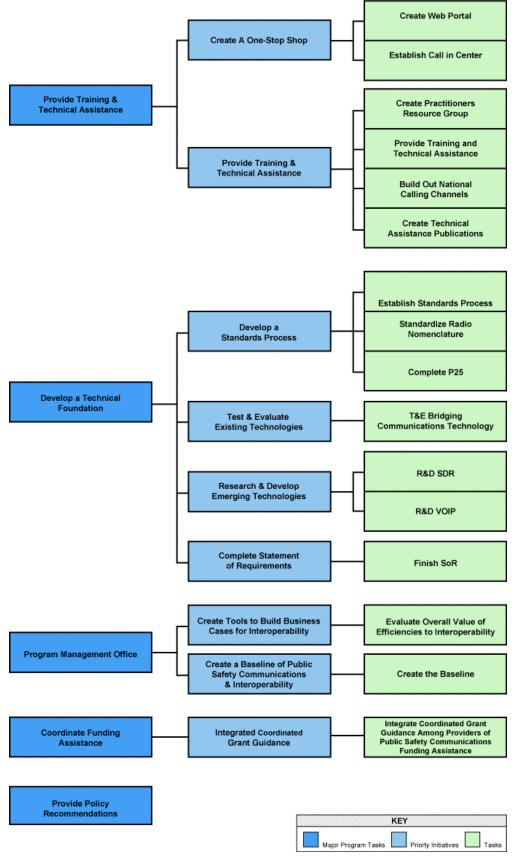


# **KEY INITIATIVES**

- ◆ Develop a process to advance standards necessary to improve public safety communications and interoperability. To accomplish this, we will identify, test, and, where necessary, develop standards in coordination with the public safety community and ongoing standards activities. We will devote resources to accelerate the completion of the Project 25 suite of standards and create a common radio nomenclature for first responders.
- ♦ **Provide technical assistance for public safety communications and interoperability.** Technical assistance, which includes support for planning, development, implementation and assessment of public safety communications systems, is a stated need of the public safety community. To provide this, we will develop a coordinated, consistent approach for the entire lifecycle of a communications system in partnership with FICC.
- ♦ **Develop tools to help jurisdictions build a business case to improve interoperability.** Public safety communications interoperability needs to be an institutionalized issue within every jurisdiction. In order to achieve this, we will develop tools that outline the added benefits of interoperability so that practitioners and policy makers at all levels understand the value of interoperability.
- Research, develop, test & evaluate (RDT&E) existing & emerging technologies for improved public safety communications and interoperability. Public safety is in need of equipment that has been tested and has been proven to meet their operational requirements. To accomplish this, we will provide funding and promote coordination across the federal government to test and evaluate existing communications equipment and bridging technologies. Longer-term public safety communications equipment needs will be addressed through research and development of emerging technologies such as software defined radio & voice over IP.

The success of these initiatives hinge on the assumption that all participants are committed to improving public safety response through effective and efficient communications & interoperability.







## **VISION**

SAFECOM and AGILE have outlined a shared vision of how the world of public safety communications and interoperability will look in the next eighteen months, five years, and twenty years. In doing so, we have established concrete and tangible goals that can motivate our progress and by which to measure our success.

#### **Objectives for 2005:**

- ♦ Know where we are: There is a national interoperability baseline.
- ♦ Know why we are: The public recognizes public safety communications and interoperability as a major national priority that affects the daily lives of all citizens.
- ♦ Know who we are: There is an institutionalized national office for public safety communications and interoperability.
- ♦ Know the issue: There is a comprehensive program to ensure that policy makers at all levels of government are educated and informed on the problems with, and solutions to, the public safety interoperable communications issue.
- ♦ Leverage what exists: There are multiple jurisdictions across the country that have improved interoperability using existing technology.
- Push what is possible: There is a research, development, testing, & evaluation (RDT&E) program in place identifying and developing a long-term, sustainable technical foundation.
- ♦ Coordinate stakeholders: There are stronger ties and interaction with the public safety community and other relevant activities, and lessons learned and best practices for public safety communications and interoperability are being identified and incorporated. Which includes:
  - Successful governance models
  - A change in public safety culture
  - o Regions defined by working circles
  - o Link to national response plan

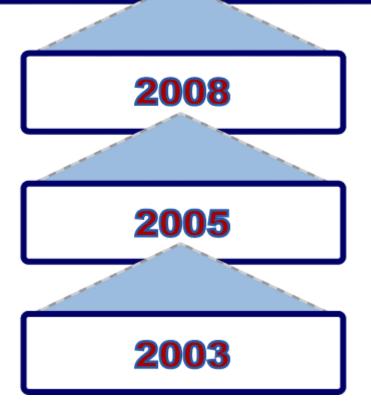


# "Everyone in this room affects whether or not this is going to happen."

# 2023

There is an integrated system-of-systems, in regular use, that allows public safety personnel to communicate (voice, data and video) with whom they need on demand, in real time, as authorized.

- Public safety can respond anywhere, bring their own equipment, and can work on any network immediately when authorized
- Public safety will have the networking and spectrum resources it needs to function properly





# **VISION**

#### **Objectives for 2008:**

- ♦ All public safety agencies in the United States have a minimum level of interoperability, as defined by the national interoperability baseline
- ♦ Baseline plus 10% of public safety agencies in the United States are fully interoperable across disciplines and at all levels of government
- ♦ Public safety interests, rather than vendors, drive communications and interoperability solutions and standards

#### **Objectives for 2023:**

- ♦ There is an integrated system-of-systems, in regular use, that allows public safety personnel to communicate (voice, data and video) with whom they need on demand, in real time, as authorized.
  - Public safety can respond anywhere, bring their own equipment, and can work on any network immediately when authorized
  - Public safety will have the networking and spectrum resources it needs to function properly

The success of achieving this vision is based on the premise that the interoperability baseline is completed.



# "Don't try... DO"



# **CALL TO ACTION**

During this meeting, key public safety practitioners and stakeholders at the local, state, and federal level chose what they determined to be the most important initiatives to improve public safety communications and interoperability. In choosing these initiatives, each participant committed to do his or her part to make sure that these objectives are achieved.

Our words have defined a world where lives and property are never lost unnecessarily because public safety agencies cannot communicate.



# "Our words cause our world."

# **APPENDIX**

Meeting Logic Flow ... A-1

Participant List ... A-2

Desired Outcomes ... A-5

Accomplishments ... A-5

Insights & Learnings ... A-7

News from the Field  $\dots$  A-8

Gameboard ... A-9

Shared Strategy ... A-10

Group Output ... A-12

Project Details ... A-19



### **MEETING LOGIC FLOW Logic Flow Logic Flow** Day 1 – December 2, 2003 Day 2 - December 3, 2003 **Opening Remarks Opening Remarks Detailing Strategic Accomplishments Initiatives Insights & Learnings Detailing Strategic Initiatives News From the Field Closing Remarks Revisiting Purposes** and Intentions **Baseline Workshop** Establishing a **Shared Strategy Logic Flow** Day 3 - December 4, 2003 **Open Forum Dialogue Closing Remarks Opening Remarks** Key: Recommendations Plenary Group Discussions in Plenary **Action Plan** Topic Specific Breakout **Closing Remarks** Mixed Breakout



#### **MEETING PARTICIPANTS**

George Ake

Program Manager CapWIN

**DJ Atkinson** 

Electronics Engineer NTIA/ITS

**Ashley Baker** 

Touchstone

**David Boyd** 

Deputy Director, Research & Development/Director, SAFECOM Program, Science & Technology Directorate, DHS

**Jeffrey Bratcher** 

Electronics Engineer NTIA/ITS

**Alan Caldwell** 

Director, Government Relations IAFC

**Bruce Cartelli** 

Division Chief San Diego Fire-Rescue Department

**Eric Coolbaugh** 

SSC San Diego

Tom Coty

Senior Program Manager NIJ, AGILE Program **Shelley Coughlin** 

**G&H** International

John Cummings

Deputy Program Manager, SAFECOM DHS

**Michael Dame** 

Supervisory Senior Policy Analyst USDOJ/COPS Office

**Bill Deck** 

Project Manager NLECTC-SE

Jim Douglas

L-3 Communications

Erin Elder

Touchstone

**Paul Embley** 

**G&H** International

**Bob Epper** 

Deputy Director, NLECTC-RM University of Denver

Fred Frantz

L-3 Communications NLECTC-NE

**Steve Gehring** 

Radio Communications Project Manager Chenega Technology Services Corp. **Scott Green** 

Partner Lafayette Group

**Bob Greenberg** 

**PSITEC** 

**G&H** International

**Bob Griffiths** 

Director NLECTC-NW

**Eldon Haakinson** 

Electronics Engineer NTIA/ITS

**Bob Hadley** 

Observer Senior Analyst GAO

**Kelly Harris** 

Deputy Executive Director SEARCH

**Philip Harris** 

NLECTC-NE

**Dan Hawkins** 

Law Enforcement IT Specialist SEARCH

Joe Heaps

Program Manager NIJ

**Clark Hendrickson** 

SSC San Diego

**Nyla Houser** G&H International



## **MEETING PARTICIPANTS**

**Barbara Hummel** 

Principal

**Axiom Communications** 

Group

**Erin Lee** 

NGA

Frank Lepage

Branch Chief ODP/DHS

**Brian Love** 

**Booz Allen Hamilton** 

John McCarthy

Touchstone

Harlin McEwen

Chief of Police (ret.)

**IACP** 

**Chris McGoff** 

Touchstone

Tom McLaughlin

Project Manager

**OLETC** 

Michelle McQueeney

**Program Specialist** 

DHS/FEMA,

Preparedness Division

**Tom Merkle** 

Standards Manager

**CAPWIN** 

**Bob Moseley** 

Systems Analyst

CAPWIN

**Rick Murphy** 

**SAFECOM** 

Glen Nash

Senior

**Telecommunications** 

Engineer

State of California

**Eric Nelson** 

**Electronics Engineer** 

NTIA/ITS

**Dereck Orr** 

Chief of Staff

**SAFECOM** 

**Juan Otero** 

Principal Legislative

Counsel

NLC

Peter Padovani

Touchstone

**Alan Pentz** 

**Touchstone** 

Val Pietrasiewicz

Division Chief

NTIA/ITS

**John Powell** 

Sr. Consulting Engineer

**NLECTC-RM** 

**Marilyn Praisner** 

Councilmember

NACo

**Ron Prater** 

Touchstone

Steve Proctor

**Executive Director** 

**UCAN** 

Tim Quinn

Assistant Director IRM

**USDA Forest Service** 

**Eddie Reyes** 

Lieutenant

Alexandria Police

Department

**Kathleen Rice** 

Touchstone

**Bob Roberts** 

Project Manager

**NLECTC-SE** 

**Mittie Rooney** 

**Principal** 

**Axiom Communications** 

Group

**Jeff Rosenblatt** 

Booz Allen Hamilton

**John Sallustio** 

L-3 Communications

Frank Sanford

L-3 Communications

**Wes Schaffer** 

Touchstone

Jackie Siegel

Writer

AGILE Support



# **MEETING PARTICIPANTS**

**Richard Shrum** 

President, The SP&T

Group

**NPSTC Support** 

**Brenna Smith** 

**G&H** International

**Matt Snyder** 

Administrator

**IACP Technology Center** 

**Charles Stephenson** 

L-3 Communications

Vinnie Stile

President **APCO** International

**Cathy Strabala** 

Program Manager **NLECTC-NW** 

Jen Telander

Program Manager

CTC-PSTC

Andrew Thiessen

**Electronics Engineer** 

NTIA/ITS

**Tom Tolman** 

**NLECTC-RM** 

John Vanderau

**Electronics Engineer** 

NTIA/ITS

Lauri Velotta

**LMIT** 

**Wally Waldron** 

Director **NLECTC-W**  **Marilyn Ward** 

Chair **NPSTC** 

**Dave Williams** 

**Booz Allen Hamilton** 

**Mike Wingate** 

Regional Incident Communications

Coordinator

**USDA Forest Service** 

Patti Yesko

Touchstone

**Robert Young** Touchstone

**Stephen Young** 

**LMIT** 

#### KEY:

APCO - Association Public Safety Communications Officials

CapWIN - Capital Wireless Integrated Network

COPS - Office of Community Oriented Policing Services

CTC - Center for Technology Commercialization

DHS - Department of Homeland Security

FEMA - Federal Emergency Management Agency

GAO - Government Accounting Office

IACP - International Association of Chiefs of Police

IAFC - International Association of Fire Chiefs

ITS - Institute for Telecommunications Sciences

LMIT - Lockheed Martin Information Technology

NACo - National Association of Counties

NIJ - National Institute of Justice

NLC - National League of Cities

NLECTC - National Law Enforcement and Corrections Technology Center

NPSTC - National Public Safety Telecommunications Council

NTIA - National Telecommunications and Information Administration

ODP - Office of Domestic Preparedness

OLETC - Office of Law Enforcement Technology Commercialization

PSITEC - Public Safety & Security Institute for Technology

UCAN - Utah Communication Agency Network

USDA - U.S. Department of Agriculture

USDOJ - U.S. Department of Justice



# **DESIRED OUTCOMES**

- ♦ Commit to a common strategy
- ♦ Recommend a detailed project plan that supports the strategy
- Understand the resources of everyone in the room and how to leverage those resources

# **ACCOMPLISHMENTS**

#### **SAFECOM Accomplishments**

- ♦ Established as the one umbrella program in the Federal Government
- ♦ Established Governance Executive Committee has met twice and will meet again at the end of week
- Created grant guidance integrated by COPS & FEMA
- ♦ Sponsored the creation Federal Coordination Council
- ♦ Began 25 Cities Demonstrations
- $\Diamond$  Released the SAFECOM RFI 150+ responses
- **◊** Facilitated NIST Summit
- ♦ Participated in White House Spectrum Policy Initiative representing public safety

#### **AGILE Accomplishments**

- ◊ Created beta version of the Grants Clearinghouse
- ♦ Created 1st Draft SoR
- P25 Testing
- ♦ Support of 800 MHz realignment
- ♦ Modifications to CAPRAD
- ♦ NPSTC replacement of NCC



# **ACCOMPLISHMENTS**

#### **Group Output**

- ♦ Leveraging What We Have
  - Interoperable Radio System, multiple jurisdictions, FL state highway patrol, 13 cities, Disney
  - o Technical Assistance- getting the good ideas out to the practitioners,
    - Supporting the integrated border enforcement teams (NY- Canadian border...including tribal...multi-layer approach)
  - Interoperability Communications Technical Assistance Program- ODP-50 cities-700 million dollars of funding
- Pushing what is possible
  - o Development of standards for interoperability- XML, P-25...This is most important because standards are the critical start point, from this we can do everything else. This is the major accomplishment.
- ♦ Coordinating Stakeholders
  - Project 25: supported by diverse stakeholders, one out of eight interfaces implemented. IPP documents (testing documents have been published).
  - Publication: "Why Can't We Talk" Bridging communication gap to save lives- 18 stakeholder groups coming to one consensus
  - That SAFECOM happened: forums, coordination, branding
    - Tony Frater: Jointness: Feds and non-Feds (local and state public safety) one voice, one community working on a program in an unprecedented fashion- two year process- Tony fought like hell to make sure this was a practitioner led program
      - Harlin, Alan, Vinnie
  - Radio Infrastructure Planning Tool (RIPT) tool provides a way to overlay radio propagation plots onto map data
    - tool is up and running in multiple configurations
    - Coordinating with DOJ IWN
  - Feds are now recognizing criticality of state and local levels in public safety
  - Recent revision of national response plan and national communications system- NICS- joint effort between a lot of agencies
  - o Emerging sense of community across Federal, state and local
  - Coalition for Improved Public Safety Communications (CIPSC): Grant guidance
    - Alan Caldwell- IAFC
    - Vinnie Stile- APCO
    - Harlin McEwen- IACP, MCC, NSA, MCSA



# **INSIGHTS & LEARNINGS**

- ♦ ATTITUDE: we bring public safety to the training and they don't want to do it.
- ♦ TRAINING: We've had the ability to be interoperable in San Diego for 8 years and I still can't talk to a police officer as a fireman, and the reason I cant: LACK OF TRAINING.
- We must think globally and act locally. We need tools and methods to build community and to cause community. We have to establish a shared vision, community and language. SAFECOM must form a big sandbox, architecture, governance and operations.
- ♦ Public safety is fragmented sending fragmented signals. We've got to get on the same message and deliver it in a synchronized way.
- ♦ WHO DRIVES THIS: Practitioner driven partnership between stakeholders, led by public safety community vs. vendors and others (Feds).
- ♦ FEDERAL TEAMWORK AND COORDINATION: Feds must coordinate daily in spite of mandates and funding streams and turfs and egos.
- ♦ BOUNDARIES: we have to define the breadth of this problem, we have to define the shared time frame and share specific milestones. We must define and bound this problem.
  - o This is a 20+ year effort.
  - o But we are dealing with 4 year executive and congressional cycles and one year budgeting cycles.
  - We need multi-discipline and multi-jurisdictional regional committees addressing day-to-day interoperability. The committee is composed of technical and operational members.
  - o Every emergency is local, managed local, begins local, ends local.
- ♦ UNITY: we need a singleness of purpose starting here in this room.
- ♦ MILITARY: We have to reach out to the military and get them involved in this conversation.
- ♦ CONGRESS: we need to find a better way to communicate the nature of the problem and the consequences of not fixing and what's required to fix it.



# **NEWS FROM THE FIELD**

During lunch on the first day of the meeting, Mike Wingate of the USDA Forest Service and Bruce Cartelli of the San Diego Fire-Rescue Department talked about their experiences during the recent Southern California wildfires. Mr. Wingate's presentation included images of the destruction, schematics of temporary LMR systems, and descriptions of interoperable communications failures.

#### What went right:

- ◊ Preplanning
- ♦ NIFC NIRSC Assets
- ♦ R5 & Cooperator Assets
- ♦ WO Frequency Management
- ♦ Help from other Federal agencies
- Pre-positioning of resources
- ♦ Availability of Aviation Channels

#### What went wrong:

- ♦ Slow delivery of radio assets
- ♦ Slow communications implementation
- ♦ AA batteries had life problems
- ♦ Antenna relays in Daniels radios
- ♦ Only technicians could program the CDF radios

#### How they did it:

- ♦ Preplanning
- $\Diamond \quad Ability \ to \ compartmentalize \ each \ incident$
- ♦ Adaptability
- ♦ Frequency agility
- **♦** Teamwork



# **GAMEBOARD**



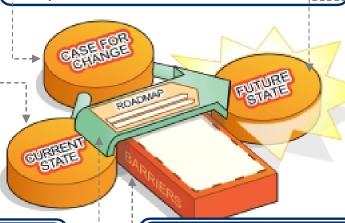
# Gameboard

#### **Current State**

- Distrust among key players (local / State / Federal)
- Short technology cycles vs. long operations life cycles
- No standard, guidance or national strategy for interoperability
- Fragmentation and limitations of the public safety spectrum
- No enforceability in Federal grant use
- Vendor driven environment
- No funding for training, planning, maintenance

#### Case for Change

- · Avoid unnecessary loss of life and property
- Save money
- Facilitate sharing of resources across disciplines and jurisdiction
- · Delay makes the situation worse



#### Future State

- Public Safety officers can transmit and receive all information (data/voice/video) necessary to maximize their effectiveness
- Public/private and local/State/Federal partnerships
- Consistent, bankable source of funding for equipment, training,maintenance
- Vendors are driven by user requirements
- Ability to upgrade functions without purchasing new hardware

#### Roadmap

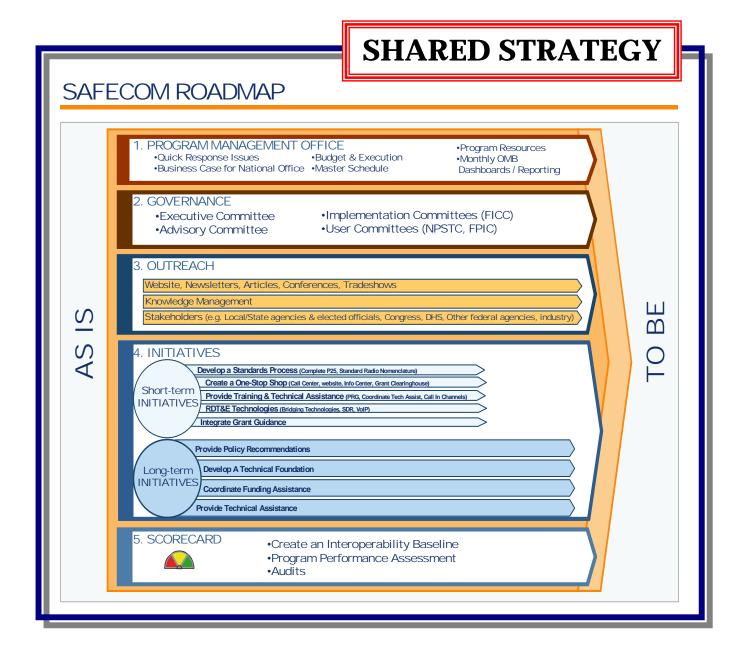
- Provide policy recommendations
- Develop a technical foundation
- Coordinate funding assistance
- · Provide technical assistance

#### Barriers

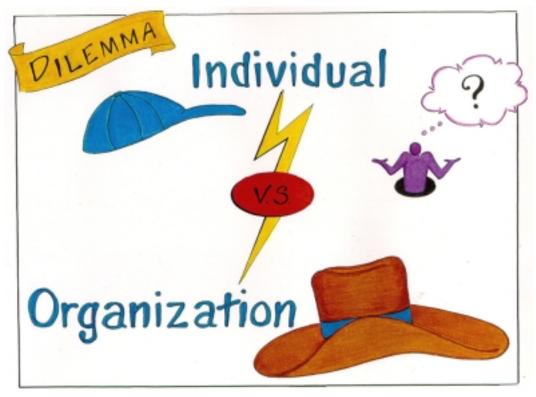
- Insufficient funding for Public Safety communications infrastructure improvements
- · Lack of staffing for SAFECOM program
- · Local and State organizations' fear of federal mandates
- · Limited credibility based on coordination efforts of Federal agencies
- · Inconsistency in the grants programs

www.safecomprogram.gov







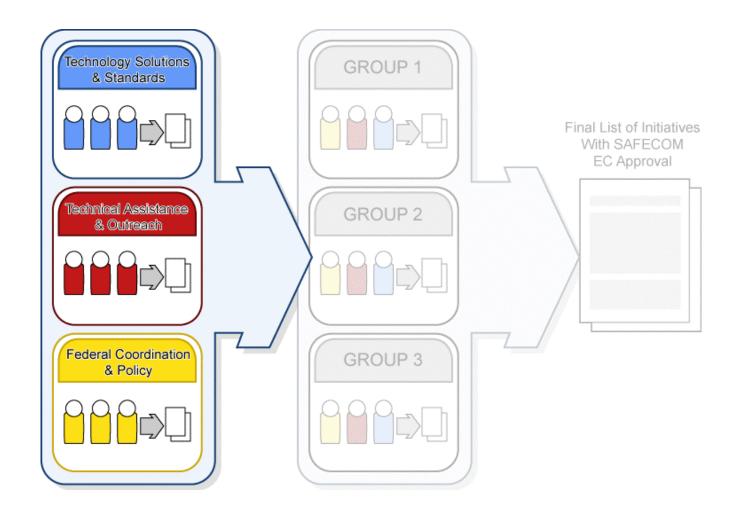


©Touchstone Consulting Group

During the meeting, participants were encouraged to think bigger than their individual programs, to wear their "big hats," so as to derive the solution to best improve public safety communications and interoperability as a whole.

# "Interoperability is a 'big hat' issue."





On Day 2, participants were divided into topic-specific groups: Technology Solutions & Standards, Technical Assistance & Outreach, and Federal Coordination & Policy. During these breakout session, participants compiled a list of suggested initiatives for the SAFECOM and AGILE programs.



# **TECHNOLOGY SOLUTIONS & STANDARDS**

#### **Priority List**

- Statement of Requirements defined and accepted by practitioner community
- ♦ Facilitate and expedite the completion of P25
- ♦ Test and evaluate interoperability bridging technologies
  - Product guide
  - o FAQs
  - Pros and cons
  - Maintenance
  - o Operation
  - Scalability
- Provide and implement a process for development and management of public safety standards
  - Coordinate and facilitate all standards making efforts
  - Practitioners and organizations incorporate these into RFPs to enhance interoperability in future procurements
  - o Proactive approach
  - Formal acceptance by public safety
  - Life cycle management of projects
  - It is the foundation
- Identify emerging technology solutions
  - Software defined radio (SDR)
  - Voice over internet protocol (VOIP)
    - Develop public safety standards for reliability and interface
      - Cannot implement large scale projects until there is commonality



# **TECHNICAL ASSISTANCE & OUTREACH**

#### **Priority List**

- Lifecycle Technical Assistance process
  - Standardized grants and follow-up technical assistance from conception to implementation
  - Technical Assistance to specific agencies (From whitepaper #6)
- ◊ Interactive portal and collaborative tools
  - Whereby information can be dispersed through the field and information can be collected back from practitioners
  - Web-based system for potential solutions
- ♦ Build out National Calling Channels
  - National channels and other interoperability channels in each band are built out such that a public safety officer can connect with a public safety agency outside of their jurisdiction at any point traveling across the country
- ♦ Common Radio Channel Nomenclature
  - o Standardize radio nomenclature for public safety communications

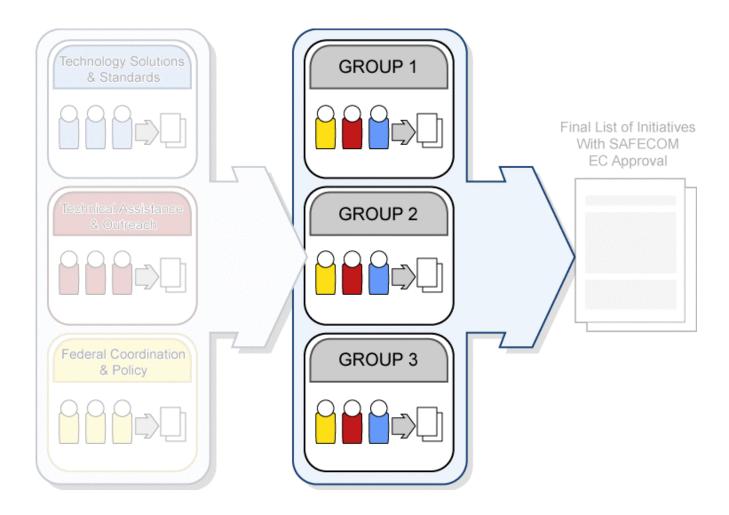


# **FEDERAL COORDINATION & POLICY**

#### **Priority List**

- ♦ CREATE A BASELINE PROTOCOL
- **⋄** Finish the Statement of Requirements
- DEVELOP A BUSINESS CASE outlining the roles responsibilities of key stakeholders and Federal entities with concurrence
  - o Long term sustainable funding for the National Office
  - Office should become a part of the annual President's budget request process
  - Appropriate agreements in place
- CREATE A ONE STOP SHOP for public safety communications interoperability for information and technology that integrates across federal agencies for all interested parties
  - Recognized as the portal of choice for public safety and interested parties
  - Measured by saying X # of communities use this portal to develop and enhance communications systems
  - o Link to SAFECOM roadmap, knowledge management and outreach
- ♦ CREATE AND SUPPORT WORKING GROUPS within SAFECOM, made of national associations representing state and local elected and appointed and public safety officials in addition to relevant stakeholders to develop work products, provide advocacy and widely promulgate / distribute public safety communications
  - Coordinate with existing org FICC and IAB
- ♦ INTERGRATE COORDINATED GRANT GUIDANCE across all grant making agencies using FICC as the mechanism
  - o Get Statewide plans for interoperability
    - Grant guidance, tech assistance to assist those states





In the afternoon of Day 2, participants separated into new groups, with representation from each of the topic-specific groups. The purpose of these breakouts was to discern the top priorities among the suggested initiatives and to provide details of the tasks necessary to implement their recommendations.



# **GROUP 1**

#### **New Task Priority List**

- ♦ Standards process
  - o Project 25 (P-25)
  - o Standard Interoperability Channel Nomenclature
- ♦ One stop shop and portal
  - o Internet doorway that ties multiple tools and information combined in a user-centric manner
- Testing and evaluation of existing and emerging technologies
- ♦ Coordinated lifecycle technical assistance
  - o From practitioners
  - Single source for users to find technical assistance
  - o All inclusive (governance, operational, technical, etc.)
- ♦ Business Case to outline added benefits and define the roles, responsibilities and activities across stakeholders



# GROUP 2

#### Assumptions (Tasks that will be done regardless)

- ♦ Statement of Requirements (SoR)
- ♦ Develop and implement business case / strategic plan for a national office

#### **Unresolved Issue (Need additional data)**

♦ National Calling Channel

#### New task priority List

- **♦ Completion of P25 Standards**
- ◊ Integrate coordinated grant guidance
- **♦ Technical Assistance Process**
- ♦ Evaluating Interoperability Bridging Technologies
- ♦ Create a one stop shop
  - o Web Portal
- ◊ Provide standards process for public safety

# **GROUP 3**

#### New task priority List

- Develop a business case for national office
- $\Diamond$  Create a one stop shop
  - o Enterprise Web Portal
- ♦ Technical Assistance Process
- $\Diamond$  Provide standards process for public safety
  - o Finish P25
  - o Common radio nomenclature
- ◊ Testing and Evaluating of existing interoperability bridging technologies
- ◊ Integrate coordinated grant guidance
- \*\*\* The group believes that rapid completion of the business case would be important to leveraging the completion of all other initiatives\*\*\*



BREAKOUT: TECHNOLOGY SOLUTIONS AND STANDARDS INITIATIVE: STATEMENT OF REQUIREMENTS

| Initiative Objective   | Resources Required  |
|--|---|
| ♦ Develop a statement of requirements that is defined<br>and accepted by the practitioner community.   | <ul> <li>◇ AGILE</li> <li>◇ SAFECOM</li> <li>◇ NIST / OLES (ITS)</li> <li>◇ NLECTC-NE</li> <li>◇ Associations (APCO, IACP, IAFC, NASEMSD, NPSTC, FLEWEG)</li> </ul>   |
| Major Steps and Deliverables   | Why is this required to meet the strategy?  |
| <ul> <li>◇ Draft document complete – January '04</li> <li>○ Scenarios, operational requirements and functional requirements</li> <li>◇ Document vetting – February '04</li> <li>○ Associations, NPSTC</li> <li>◇ Final Document – March '04</li> </ul> | <ul> <li>◇ Capture user needs without being constrained by existing technology</li> <li>⋄ Use to perform gap analysis (user needs vs. current solutions)</li> <li>⋄ Used to identify future architecture solutions</li> <li>⋄ Information source for regulatory bodies and industry</li> <li>⋄ Allows targeted R&amp;D, T&amp;E and pilots</li> </ul> |

Breakout: Technology Solutions and Standards Initiative: Completion of P25 Standards

| Initiative Objective  | Resources Required  |
|---|---|
| ♦ Develop the specifications for the remaining 7 interfaces of Project 25   | ◇ Consolidated effort with 7 to 9 full time people<br>assigned to P25 and TIA TR-8 Committees, and<br>lab facilities and staff to validate standards<br>concepts at the same time. Could be done by<br>NIST/OLES through NTIA/ITS in Boulder, CO.<br>\$2.1 million including travel to standards<br>meetings.                             |
| Major Steps and Deliverables  | Why is this required to meet the strategy?  |
| <ul> <li>♦ At a minimum, complete the Inter-RF-Subsystem interface standard and accompanying interoperability process and procedures document (s)</li> <li>♦ Work on other interfaces including the console interface, etc., and complete as many as possible by July 2005</li> </ul> | ♦ All 8 P25 interfaces are required to be<br>standardized in order for practitioners to take full<br>advantage of the new digital radio's<br>functionality. Only one interface is currently<br>specified fully. Standardizing the remaining<br>interfaces will promote interoperability and<br>completion for a wide range of priorities. |



BREAKOUT: TECHNOLOGY SOLUTIONS & STANDARDS INITIATIVE: IDENTIFY EMERGING TECHNOLOGY SOLUTIONS

| Initiative Objective  | Resources Required  |
|---|---|
| ♦ Identify and evaluate emerging technology solutions<br>based on practitioner interoperability requirements  | <ul> <li>♦ SOR Completion in identified areas</li> <li>♦ Standards development expertise (NIST/OLES (ITS))</li> <li>♦ Host PS Agency (s)</li> <li>♦ Equipment &amp; Technical experts for deployment         <ul> <li>• Agencies or Vendors</li> </ul> </li> <li>♦ Program Managers (2)         <ul> <li>• VOIP NLECTC-NW</li> <li>• SDR NE Ctr.</li> </ul> </li> <li>♦ SDR Forum &amp; JTRS</li> </ul> |
| Major Steps and Deliverables  | Why is this required to meet the strategy?  |
| <ul> <li>◇ Voice over Internet Protocol</li> <li>○ Develop PS standards based on QOS and Mission Critical Requirements (From the SOR)</li> <li>○ Operational Test-bed deployment and evaluation based on QOS &amp; Mission Critical Requirements</li> <li>◇ Software Defined Radio</li> <li>○ Continue support in development of PS Requirements (From the SOR)</li> <li>○ Facilitate SDR Pilot Deployment Project for laboratory and operational field evaluation</li> </ul> | ♦ Identify and remain current with emerging<br>interoperability solutions and promote<br>development of standards for these new solutions   |

# BREAKOUT: TECHNOLOGY SOLUTIONS & STANDARDS INITIATIVE: EVALUATE INTEROPERABILITY BRIDGING TECHNOLOGIES

| Initiative Objective  | Resources Required  |
|---|---|
| ♦ Test and evaluate existing interoperability bridging<br>technologies.   | <ul> <li>♦ AGILE:</li> <li>♦ NLECT Center System</li> <li>♦ NIST/OLES (ITS)</li> <li>♦ CapWIN</li> <li>♦ SAFECOM</li> <li>♦ ODP</li> <li>♦ Practitioners with demonstration and test systems</li> </ul>   |
| Major Steps and Deliverables  | Why is this required to meet the strategy?  |
| <ul> <li>♦ Test and evaluate existing interoperability bridging technologies</li> <li>♦ Develop compatibility to demonstrate working solutions for outreach purposes at trade shows &amp; conferences (available as tested and verified)</li> <li>♦ Practitioner Product Guide – FAQ's, pros &amp; cons, scalability, costs, maintenance requirements, and lessons learned. Format would be CD, website, and/or document. Time line would be a current report (6 months) with semi-annual updates.</li> </ul> | <ul> <li>♦ To meet the near term interoperability needs of practitioners by utilizing cost effective measures which make efficient use of existing equipment, recognizing that resources are usually limited.</li> <li>♦ To assist agencies with limited engineering expertise to make the best decisions with purchasing equipment.</li> </ul> |



Breakout: Technology Solutions & Standards Initiative: Provide standards process for Public Safety

| Initiative Objective   | Resources Required  |
|--|---|
| <ul> <li>◇ Provide and implement a foundation process for development and management of public safety standards.</li> <li>◇ Coordinate and facilitate all standards making efforts</li> <li>◇ Practitioners and organizations incorporate standards into RFPs to enhance interoperability in future procurements</li> <li>◇ Provide formal acceptance mechanism for public safety</li> <li>◇ Manage lifecycle of standards projects</li> <li>◇ Provide a single unified voice for PS with regard to communication standards</li> <li>◇ Provide a path to open systems implementation in the PS community</li> <li>◇ Translate SoR functional requirements into technical specifications</li> </ul> | <ul> <li>♦ NIST/OLES (technical interface to standards bodies)</li> <li>♦ Centers (incorporation of PS practitioners, education, and outreach)</li> <li>♦ AGILE/SAFECOM – group management</li> <li>♦ Touchstone – Group meeting logistics and facilitation</li> <li>♦ Practitioners – group participation</li> <li>♦ Model Projects (e.g., CAPWIN, APD, ARJIS) (provides field testing sites for standards)</li> </ul>   |
| Major Steps and Deliverables   | Why is this required to meet the strategy?  |
| <ul> <li>♦ Establish a practitioner-based standards governance body and business process that is designed to ensure standards meet practitioner requirements</li> <li>♦ Identify standards development efforts that affect public safety and initiate contact with SDOs with a focus on introducing PS requirements and coordination between disparate efforts</li> <li>♦ Develop an outreach strategy to educate the community with regard to acknowledging and accepting the authority of the body mentioned above</li> <li>♦ Governing body analyzes gaps in available standards and provides guidance on R&amp;D efforts and standards development efforts to fill those gaps</li> </ul>       | <ul> <li>♦ Many standards development efforts are occurring in parallel and result in conflicting standards (which ultimately inhibits interoperability).</li> <li>♦ Most current standards development efforts do not consider public safety requirements</li> <li>♦ R&amp;D outputs require a means of standardization and institutionalization.</li> <li>♦ Standards provide the yardstick that can be used to analyze R&amp;D and T&amp;E outputs.</li> </ul> |

Breakout: Technical Assistance & Outreach Initiative: Common Radio Nomenclature

| Initiative Objective  | Resources Required  |
|---|---|
| <ul> <li>Work with Regional Planning committees to develop a common method to designate interoperable channels in each region.</li> <li>So, when first responders search their radios for a common talking channel/group, it is called the same thing in each jurisdiction.</li> </ul>  | <ul> <li>◇ NPSTC/NLECTC RM/CAPRAD Support services for RPCs</li> <li>◇ Publications in APCO, IAFC, IACP, etc.</li> <li>◇ \$500,000</li> <li>◇ One FTE to coordinate project for 1.5 years only</li> </ul> |
| Major Steps and Deliverables  | Why is this required to meet the strategy?  |
| <ul> <li>◇ Develop meeting schedule for all regional chairs—         providing location and funding for attendance and all         the resources they need to ensure they can write the         common nomenclatures in each regional plan.</li> <li>◇ Once in agreement, agree to not accept applications         that do not comply.</li> </ul> | ♦ Today each entity inter-op channels by a locally<br>selected name. We must ensure that public safety<br>responders can find inter-op channels quickly and<br>easily When on a mutual aid response.      |



**Breakout: Technical Assistance & Outreach** 

INITIATIVE: FIRST RESPONDER TRAINING

| Initiative Objective  | Resources Required   |
|---|--|
| <ul> <li>◇ Real improvements in interoperability result from training/technical assistance provided by first responders supported by SAFECOM         <ul> <li>○ First responders train first responders</li> <li>○ 12 local public safety agencies will host regional training sessions on interoperability issues. At these sessions, first responders will train first responders in solutions. SAFECOM will check back with each hosting agency (and attendees) to measure real improvements in interoperability resulting from sessions.</li> </ul> </li> </ul> | <ul> <li>♦ Orgs: SAFECOM, APCO, grant making orgs.</li> <li>♦ \$240,000</li> <li>♦ 2.5 FTEs</li> </ul> |
| Major Steps and Deliverables  | Why is this required to meet the strategy?   |
| <ul> <li>♦ 6 mo. – to plan/ramp-up; identify local hosts (based on grants or scorecard); develop materials; train trainers</li> <li>♦ 6 mo to conduct sessions</li> <li>♦ 6 mo to assess improvements</li> </ul>  | Multiple jurisdictions will have actually improved interoperability using exiting technology           |

BREAKOUT: TECHNICAL ASSISTANCE & OUTREACH INITIATIVE: PUSH WHAT IS POSSIBLE

| Initiative Objective   | Resources Required  |
|--|---|
| <ul> <li>◇ National Calling Channels Monitoring Initiative – within each of the public safety spectrum bands there are nationally licensed frequencies which are intended to be monitored at all major city PSAP's.</li> <li>◇ Few cities currently monitor these channels and those that do only monitor the 800 MHz channels.</li> <li>◇ This project creates models that would set an example of how to build out a system to monitor all bands and also to educate public safety as to the availability and intended use of these channels.</li> </ul> | <ul><li>♦ \$1 million</li><li>♦ 3 FTE's</li><li>♦ NE Center</li></ul>   |
| Major Steps and Deliverables   | Why is this required to meet the strategy?  |
| <ul> <li>◇ Build out at least two models (one urban, one rural) of multi band channel monitoring stations</li> <li>◇ &lt; 18 months</li> </ul>   | ♦ These models will act as a catalyst to foster<br>awareness of the national calling channels for<br>public safety and would be a major stepping stone<br>to national interoperability. |



BREAKOUT: TECHNICAL ASSISTANCE & OUTREACH INITIATIVE: TECHNICAL ASSISTANCE PROCESS

| Initiative Objective   | Resources Required   |
|--|--|
| ♦ Establish a technical assistance arm of SAFECOM that provides direct technical assistance to communities, states, etc. to define and/or implement interoperability solutions. Priorities should be based on grantee awardees to assist implementation and provide tangible measurable impact. SAFECOM should be the coordinating agent on technical assistance provided. | <ul> <li>♦ Scaleable: to do a credible job</li> <li>♦ 15 SAFECOM people</li> </ul> |
| Major Steps and Deliverables   | Why is this required to meet the strategy?   |
| ♦ Coordination of granting authorities   | ♦ Coordination of federal funding  |
| ♦ Prioritize needs – focus on grantees but not exclusively   | ◊ Provide impact to congress and field   |
| ◊ Identify targeted areas  | ♦ Show measurable results on interoperability                                      |
| ◊ Provide direct assistance  | (scorecard)  |
| <ul> <li>Report out progress and coordinate with other federal<br/>agencies doing technical assistance</li> </ul>  | ♦ Maximize investment to the users   |
| ♦ SAFECOM to create coordinating body with DOJ, NIJ,<br>ODP, COPS, BJA, FEMA   |  |

BREAKOUT: TECHNICAL ASSISTANCE & OUTREACH INITIATIVE: WEB PORTAL

| Initiative Objective   | Resources Required  |  |  |
|--|---|--|--|
| <ul> <li>♦ Creation of a web portal that addresses the following needs:         <ul> <li>Training for first responders</li> <li>Document repository and archiving</li> <li>Bulletin board services</li> <li>Email distribution system</li> <li>Instant message capability</li> <li>Education of decision makers</li> </ul> </li> <li>♦ Interactive tools (search engines &amp; technical solution wizard)</li> </ul> | <ul> <li>♦ Hardware (\$200k)</li> <li>♦ Co-location (\$2k/month) (system location)</li> <li>♦ Software (\$750k)</li> <li>♦ Labor (\$1.5M)</li> <li>♦ Maintenance (none within first 18 months)</li> <li>♦ Travel (\$45k)</li> <li>♦ Tradeshows (\$50k)</li> </ul>   |  |  |
| Major Steps and Deliverables   | Why is this required to meet the strategy?  |  |  |
| <ul> <li>◇ ID the integrator</li> <li>⋄ ID of hardware</li> <li>⋄ ID of software</li> <li>◇ Purchase/installation/integration of the above</li> <li>◇ Rollout of first service (bulletin board services)</li> <li>⋄ Iteration through the select user community</li> <li>⋄ Continued rollout of services with select user iteration</li> <li>⋄ Nationwide rollout and education</li> </ul>                           | <ul> <li>◇ Coordinate stakeholders         <ul> <li>○ Example: User forums</li> </ul> </li> <li>◇ Leverage what exists         <ul> <li>○ Example: document repository</li> </ul> </li> <li>◇ Know why we are         <ul> <li>○ Example: public face of SAFECOM</li> </ul> </li> <li>◇ Know who we are         <ul> <li>○ Example: marketing tool for the national office</li> </ul> </li> <li>◇ Know the issue         <ul> <li>○ Example: policy makers can be ted/informed with their own portal</li> </ul> </li> </ul> |  |  |



BREAKOUT: TECHNICAL ASSISTANCE & OUTREACH
INITIATIVE: DEVELOP A PLAN/CASE FOR THE NATIONAL OFFICE OF PUBLIC SAFETY
COMMUNICATIONS INTEROPERABILITY

| COMMUNICATIONS INTEROTERABLE!!  |   |  |  |
|---|---|--|--|
| Initiative Objective  | Resources Required  |  |  |
| <ul> <li>◇ Develop a vision, structure, concept for the National Office – Draft 1</li> <li>◇ Gather consensus and buy-in for this concept from State/local and Federal practitioner associations – Draft 2</li> <li>◇ Create final plan and implement (congressional funding &amp; mission)</li> </ul>  | <ul> <li>♦ Task Force</li> <li>♦ 3-5 FTEs</li> <li>♦ SAFECOM and P.S. Associations</li> </ul> |  |  |
| Major Steps and Deliverables  | Why is this required to meet the strategy?  |  |  |
| Develop draft white paper     Share and the state of | Vital steps to achieve one of the 18 month     SAFECOM "declarations"                         |  |  |
| <ul> <li>♦ Share with P.S. Associations and get changes/feedback</li> <li>♦ Produce revised draft</li> </ul>  | SAFECOM declarations  |  |  |
| Get final consensus   |   |  |  |
| ◊ Implement plan (congressional buy-in, FY06 funds and<br>mission assignment)   |   |  |  |