

**“Demystifying How Broadband Technologies,
Next Generation 911 and SAFECOM protect Public Safety”**



NACo Technology Innovation Summit-Feb. 20, 2016



MC/Pat Irwin-Pershing County Commissioner/Nevada



Pershing County 6,500 residents/Burning Man 2014-70,000 participants

EMBRACE





Truck Vs. AMTRAK 2011

NG9-1-1



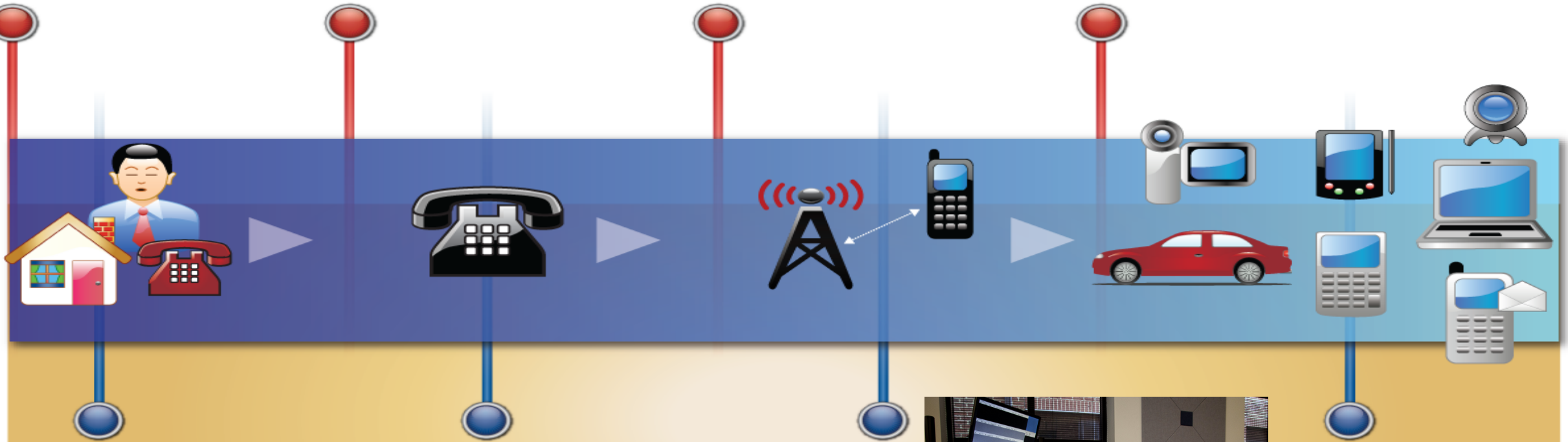
Evolution of the 911 System

1968

1980's

1990's

2000's



Basic 9-1-1

- Copper Land Line
- Analog Technology

Enhanced 9-1-1

- ANI/ALI

Wireless E9-1-1

- Phase I
- Phase II




Voice over IP, Images, Video, Text, Telematics



NENA i3 Standard

i3 is the NENA architecture for a system of 9-1-1 services, functional elements and databases that run on an Emergency Service IP Network (ESInet). 9-1-1 calls will be routed via geospatial databases. It will replace E9-1-1 capabilities eventually while retaining the functions in place today.



NG9-1-1

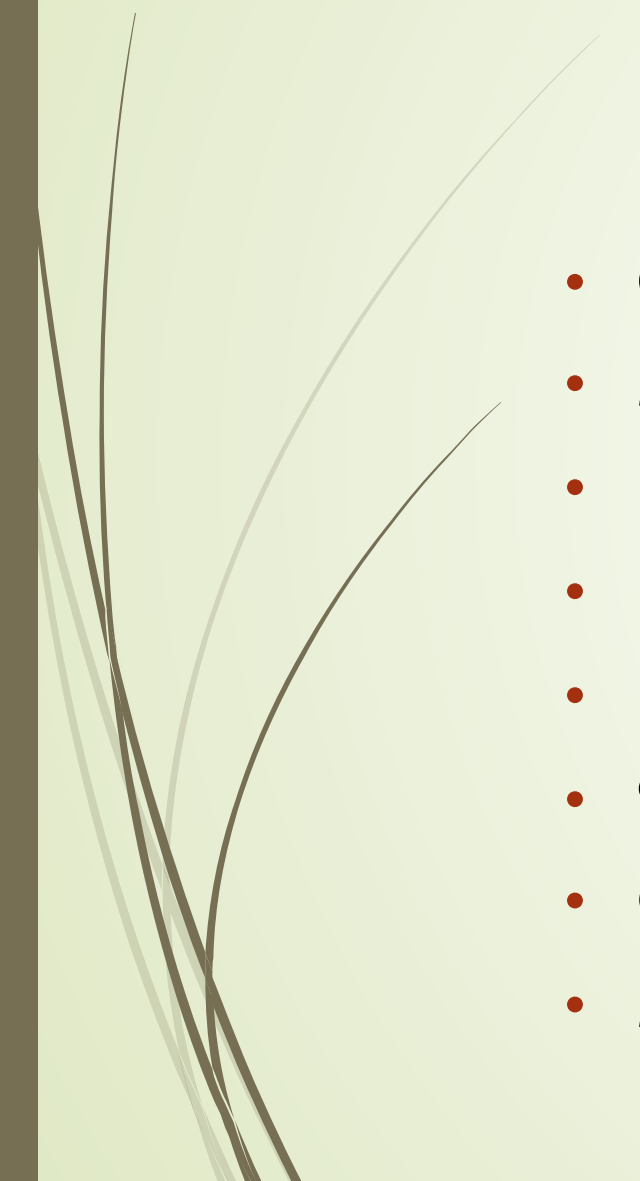
- Connects citizens to Public Safety
- Connects Public Safety agency to Public Safety Agency
- Puts real times events in the hands of 1st Responders
- An IP based technology
- Allows of Text Messaging
- Pictures
- Video
- Medical Telemetry

Today's 9-1-1 versus NG9-1-1

Today's 9-1-1	Next Generation 9-1-1
Virtually all calls are voice callers via telephones using analog lines to access PSAP.	Voice, text, or video information, from many types of communication devices, sent over IP networks
Most information transferred via voice	Advanced data sharing is automatically performed
Callers routed through legacy selective routers, limited forwarding / backup ability	Physical location of PSAP becomes immaterial, callers routed automatically based on geographic location, enhanced backup and resiliency
Limited ability to handle overflow situations, callers could receive a busy signal	PSAPs able to control call congestion treatment, including dynamically rerouting callers



Challenges in deploying NG9-1-1

- 
- Cost
 - Managing Public Expectations
 - Dispatcher Training
 - Data Storage
 - Regional PSAP MOU's
 - 9-1-1 consolidations
 - Governance
 - Migration from legacy equipment



Next Steps / Future

- Develop strategic plan
- Identify funding
- Look for grant opportunities
- Develop governance model
- Discuss PSAP consolidation
- Manage public expectations
- **NG9-1-1 is an evolutionary process**



Night time takes a different look at Burning Man



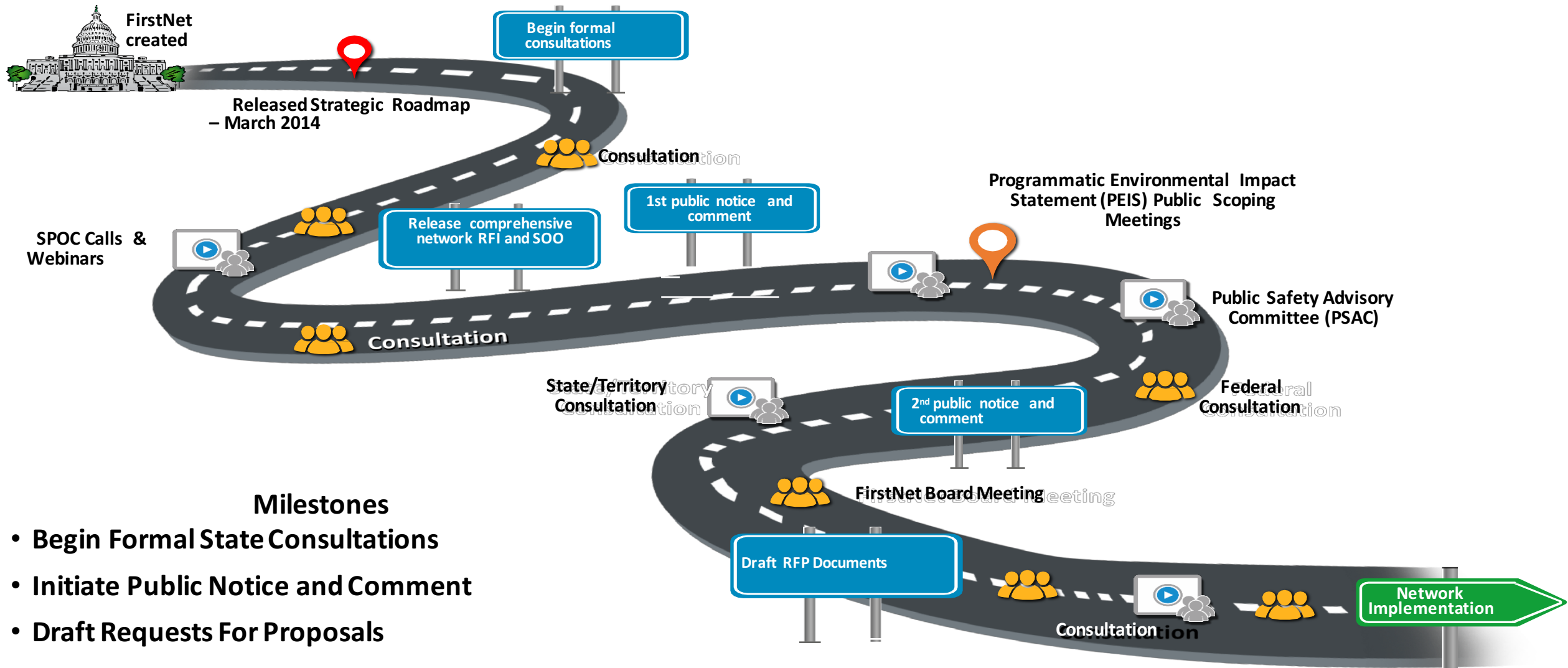
www.firstnet.gov

FirstNet[®]

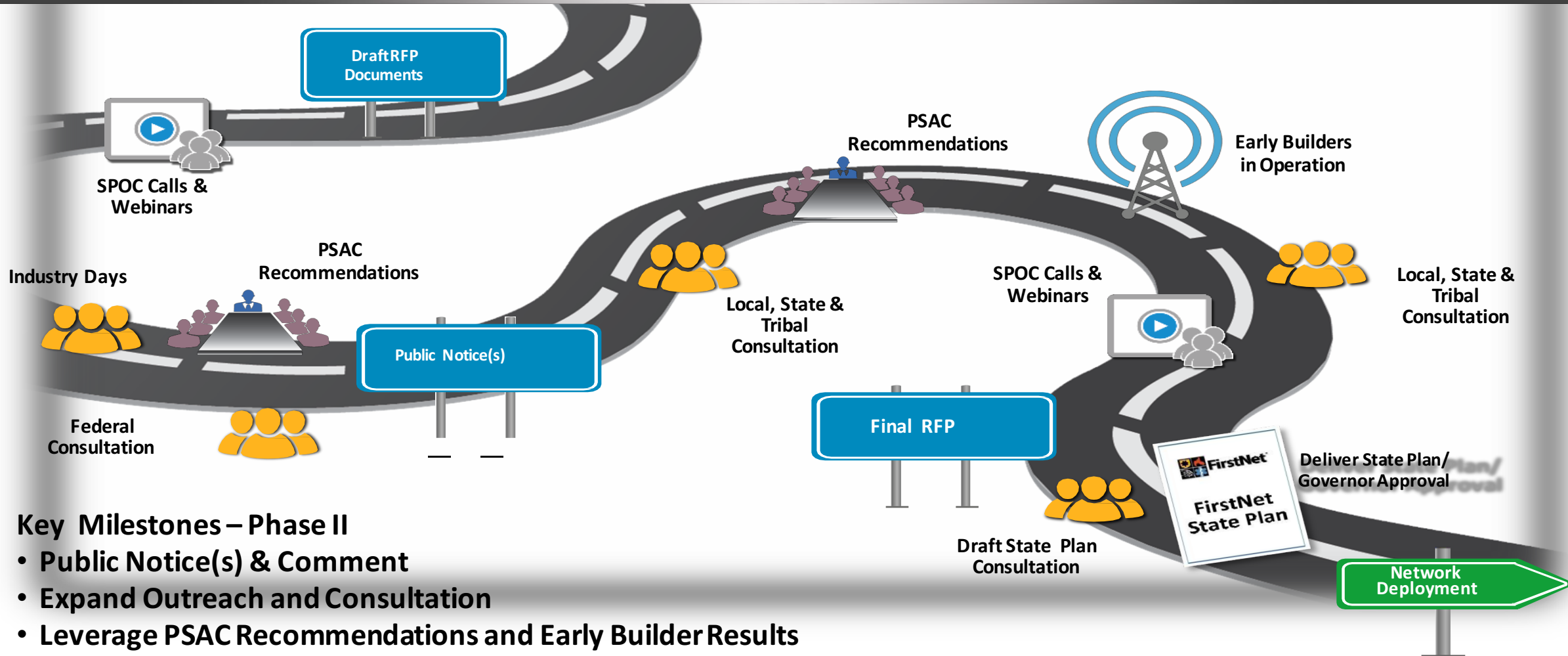


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Our Strategic Roadmap



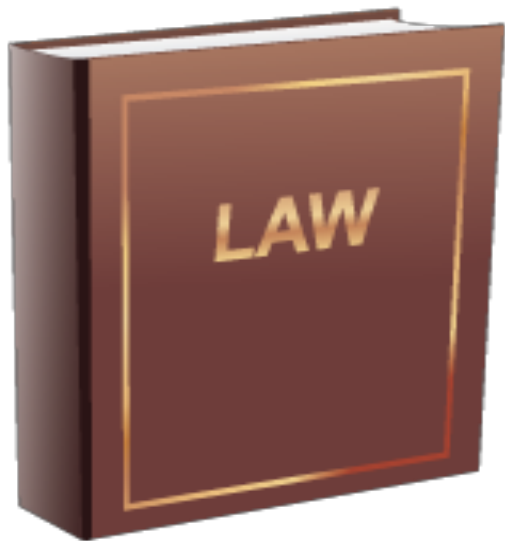
Phase II: Road To Implementation



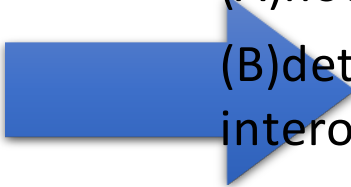
Consultation, Outreach, & State Plans



Middle Class Tax Relief and Job Creation Act of 2012



“Upon the completion of the request for proposal process...the First Responder Network Authority shall provide to the Governor of each State, or his designee—

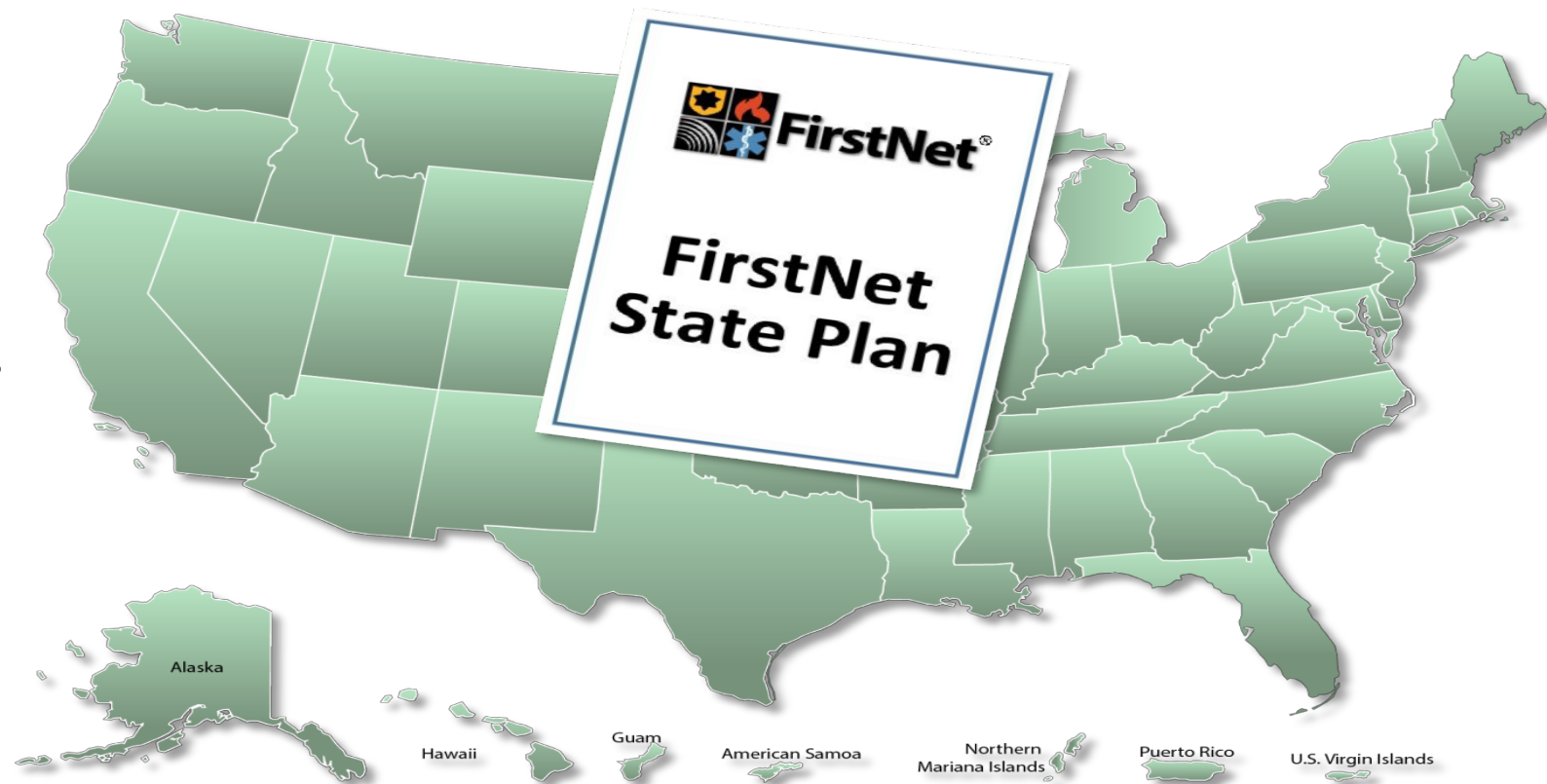
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- (A) notice of the completion of the request for proposal process;
 - (B) details of the proposed plan for buildout of the nationwide, interoperable broadband network in such State (“State Plan”); and
 - (C) the funding level for the State as determined by the NTIA.”

State Plan Process



Under the Act, the Governor has 90 days to choose whether to

1. Participate in the FirstNet proposed radio access network (RAN) deployment or
2. Assume responsibility to conduct its own state RAN deployment



Things to consider



What do you expect from FirstNet?

How much are you willing to spend?

What technologies will be replaced?

Will there be sufficient coverage?

Fremont County Idaho

Sunset at Big Springs







Homeland Security

2016 National Association of Counties Legislative Conference

National Association of Counties Legislative Conference
February 20, 2016

Chris Essid
Deputy Director
Office of Emergency Communications

OEC's Creation



Sept. 11, 2001



Hurricane Katrina

- Lack of national and statewide plans
- Lack of governance
- Lack of standard operating procedures
- Limited training and exercises
- Limited technical standards



Office of Emergency Communications

Created in 2007 to address public safety interoperability gaps

Interoperability: Ability of emergency responders to communicate among disciplines, jurisdictions, frequency bands, and levels of government as needed and as authorized.

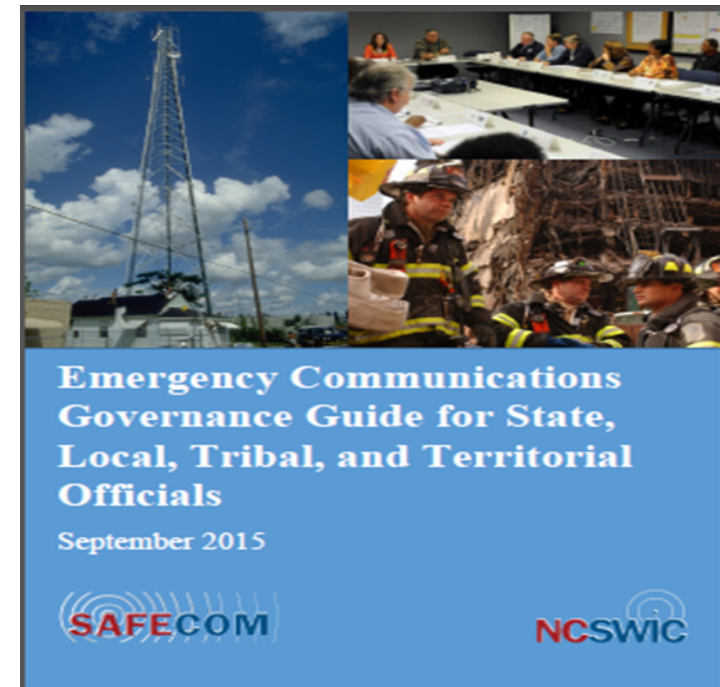


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SAFECOM and Its Priorities This Year

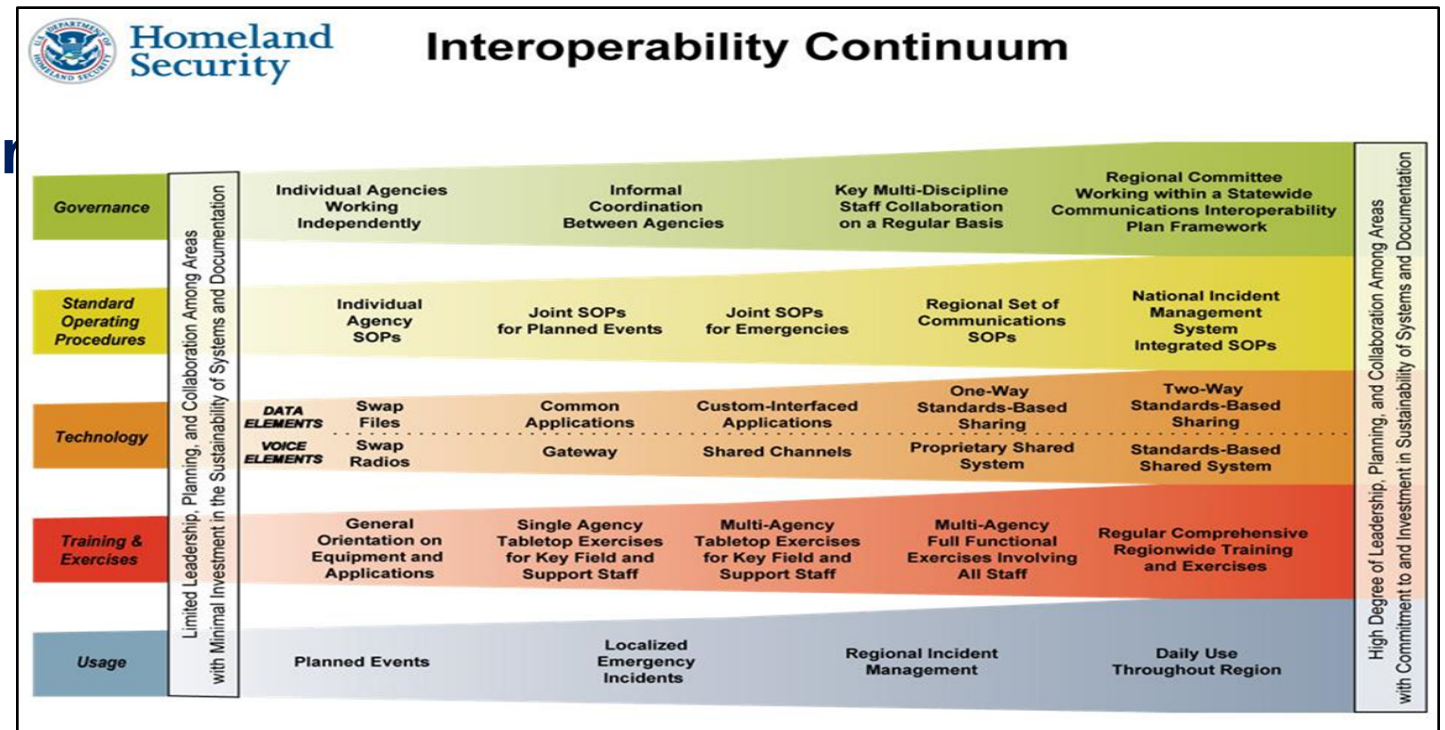
- 65 members representing 31 public safety and intergovernmental associations
- Works to improve multi-jurisdictional and intergovernmental communications interoperability
- 2016 Priorities include:
 - Strengthen governance
 - Develop best practices for using encryption, standard channel names, and federal and non-federal interoperability channels on LMR systems



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Achieving Interoperable Communications

- What is required to achieve and sustain reliable interoperable emergency communications?
- Governance
- Standard Operating Procedures
- Technology
- Training & Exercises
- Regular Usage

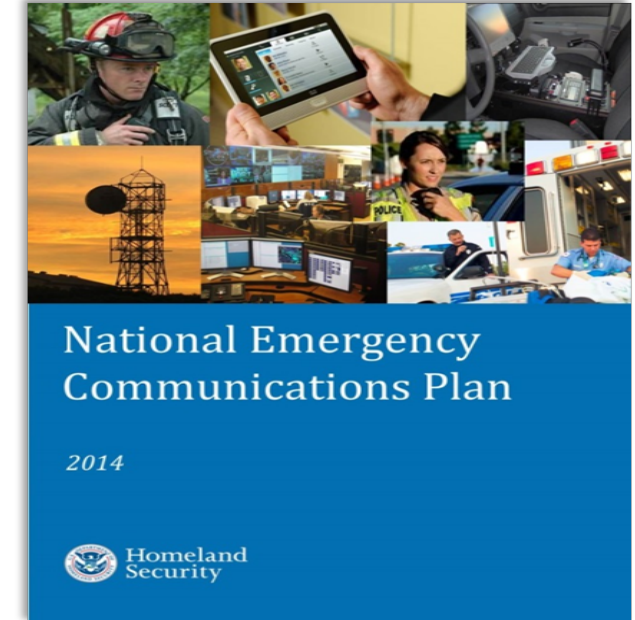


Homeland Security

Office of Emergency Communications

OEC Today

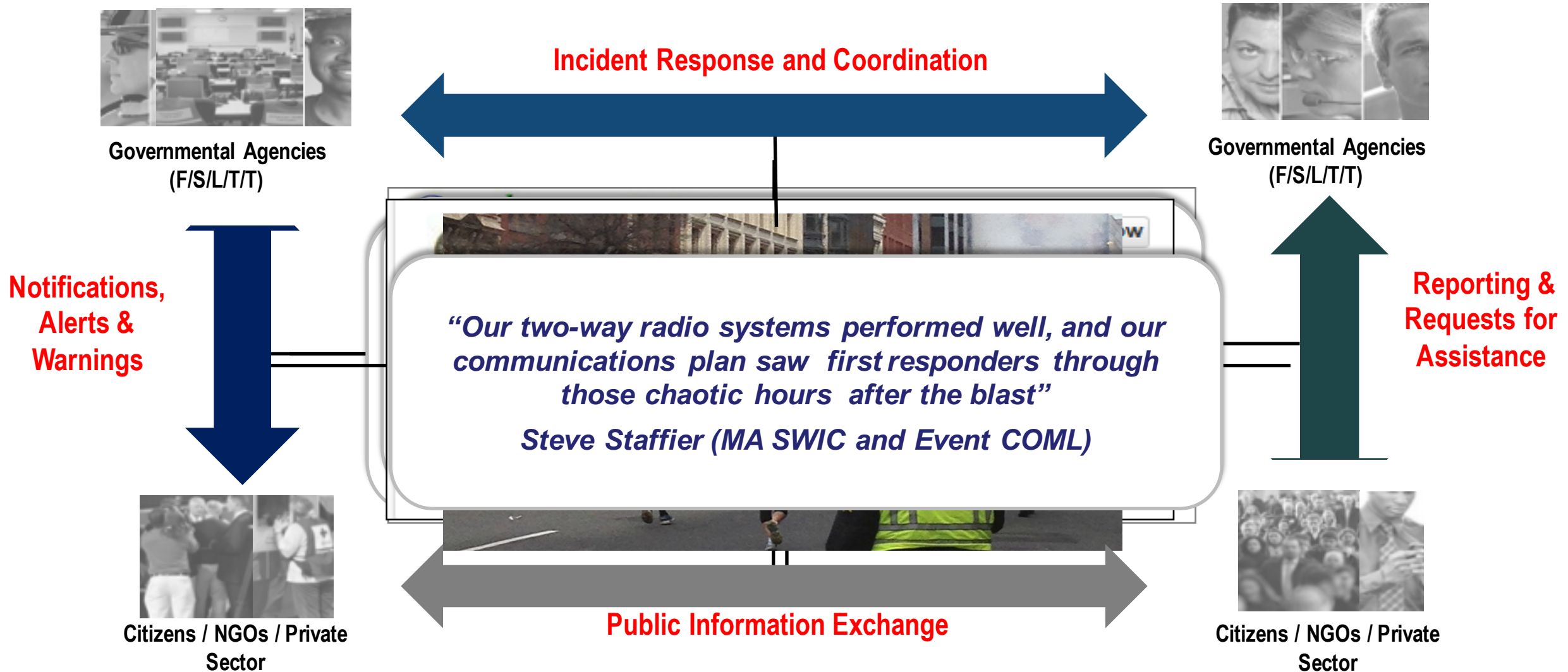
- **National Emergency Communications Plan (NECP)**
 - Released in 2008 as first national strategic plan for emergency communications
 - Updated in 2014 to account for broadband technology
- **Statewide Communications Interoperability Plans (SCIPs)**
 - 53 out of 56 States have revised SCIPs
 - 20 SCIP Workshops completed in 2015 to update plans; 25 SCIP Workshops planned for 2016
- **State-Requested Technical Assistance (TA)**
 - Completed 163 TA requests in 2015
- **Grants**
 - Drive implementation of NECP priorities and recommendations through DHS grant guidance (e.g. SAFECOM)
- **Priority Telecommunications Services (GETS/WPS/TSP)**
 - Public safety users register to receive priority access to landline & cellular networks in times of increased network congestion



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Evolving Emergency Communications Ecosystem – Boston Marathon Bombing



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