What U.S. Adoption of AACN Means
Laurie Flaherty, Coordinator, National 911 Program
USDOT, NHTSA Office of EMS

Agenda:
• Description of the Challenge
• Status of 911 & Efforts to Date
• Emergency Medical Services & Efforts to Date
National 911 Program

Mission: To provide Federal leadership and coordination in supporting and promoting optimal 911 services. This Federal "home" for 911 plays a critical role by coordinating 911 efforts, creating 911 resources, and administering the 911 Grant Program.

EMS Program

Mission: To reduce death and disability by providing leadership and coordination to the EMS community in assessing, planning, developing and promoting comprehensive, evidence-based EMS and 911 systems.
More Complicated than other Auto-“centric” Issues

To be successful, must be adopted by:
1) Auto Industry
2) 911 Community
3) Emergency Medical Services & Trauma Services
The U.S. 911 System

• More than 240 million calls per year
• 70-80% of calls from Cell Phones
• 6,000-7,000 Public Safety Answering Points (PSAPs)
  ◦ 66-75% are small (2-5 seats)
  ◦ <10% are very large (e.g., NYC, Chicago)
• Very decentralized governance and operation (state/local)
• Protocol driven – (opportunity***)

***Opportunity***
## Transition of the 911 System

<table>
<thead>
<tr>
<th>Legacy 911</th>
<th>Next Generation 911</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virtually all calls are voice callers via telephones using analog lines to access PSAP.</td>
<td>Voice, text, or video information, from many types of communication devices, sent over IP networks</td>
</tr>
<tr>
<td>Most information transferred via voice, very limited data capability</td>
<td>Advanced data sharing is automatically performed</td>
</tr>
<tr>
<td>Callers routed through legacy selective routers, limited forwarding / backup ability</td>
<td>Physical location of PSAP becomes immaterial, callers routed automatically based on geographic location, enhanced backup and resiliency</td>
</tr>
<tr>
<td>Only back-up: PSAP next door (maybe)</td>
<td>Multiple back-up possibilities</td>
</tr>
<tr>
<td>Connection to other PSAPs: None</td>
<td>Connection to all other PSAPs</td>
</tr>
<tr>
<td>Limited ability to handle overflow situations, callers could receive a busy signal</td>
<td>PSAPs able to control call congestion treatment, including dynamically rerouting callers</td>
</tr>
</tbody>
</table>
### Status of Next Generation 911 Deployment

<table>
<thead>
<tr>
<th>Data Element</th>
<th>2011 Data by Reporting States</th>
<th>2013 Data by Reporting States</th>
<th>2014 Data by Reporting States</th>
<th>2015 Data by Reporting States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statewide NG911 Plan Adopted</td>
<td>9 of 27</td>
<td>15 of 39</td>
<td>19 of 42</td>
<td>20 of 46</td>
</tr>
<tr>
<td>Statewide Request for Proposal Released</td>
<td>Not Reported</td>
<td>13 of 36</td>
<td>18 of 42</td>
<td>19 of 46</td>
</tr>
<tr>
<td>State Contract Has Been Awarded</td>
<td>Not Reported</td>
<td>13 of 29</td>
<td>16 of 42</td>
<td>18 of 46</td>
</tr>
<tr>
<td>Statewide Installation and Testing</td>
<td>Not Reported</td>
<td>9 of 30</td>
<td>11 of 42</td>
<td>17 of 46</td>
</tr>
</tbody>
</table>
Percentage of PSAPs States that are connected to Operational Emergency Services IP Network

Of the 45 reporting States:

- 10 States have 100% of PSAPs connected
- 10 States have some of PSAPs connected
- 19 States do not have PSAPs connected
- 6 States are “unknown” - State did not respond to this data element.
Operational Next Generation 911 Components

Operational NG911 Systems defined as processing voice calls (ANI & ALI) using IP infrastructure

**States may not have completed implementation statewide**
U.S. EMS System

- More than 21,000 state licensed local EMS agencies (National EMS Assessment 2011)
- Almost 1 million licensed EMS Professionals (NASEMSO survey 2009)
- 37 million calls for EMS service in 2009, resulting in 28 million transports (NASEMSO, 2009)
- Very decentralized governance and operation (state/local)
- Evidence-based practice & protocols (EMS Medical Directors - ER docs) - (opportunity***)
- Trauma System - a subset of the EMS system (Trauma Surgeons)
The Emergency Medical Services System
### Guidelines for Field Triage of Injured Patients 2011

**Step One**  
Vital Signs  
Blood pressure, Respiratory rate, Level of consciousness

**Step Two**  
Signs of Obvious Injury  
Penetrating injuries, Chest deformity, 2 long-bone fractures  
Crushed or mangled extremity, Amputation, Pelvis fractures  
Open or depressed skull fracture, Paralysis

**Step Three**  
Mechanism of Injury  
Falls (Adults: >20 feet; Children: >10 feet),  
High-risk auto crash (>12 inches Intrusion, Ejection, Passenger Death, *Vehicle telemetry data consistent with a high risk of injury*), Auto vs. pedestrian/bicyclist thrown, Motorcycle crash >20 mph

**Step Four**  
Special Considerations  
Elderly, Children, Burns, Pregnancy, Medical Conditions, EMS judgment