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Industry Perspective on Next Generation 911

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Time Division Multiplexing (TDM) to IP Transition

- The public is switching from traditional land line service to VoIP and Wireless service at an accelerated rate
- As a result, the Public Switched Telephone Network (PSTN)
 - Has a significantly reduced subscriber base, and
 - Is rapidly moving to an all IP Network
- The FCC recognized this in the “National Broadband Plan”
 - Concluding that the commission should “start considering the necessary elements of this transition in parallel with efforts to accelerate broadband deployment and adoption.”
- NG-911 has to be part of this transition plan

Aging Infrastructure

- Traditional TDM switching is becoming hard to maintain
 - Applies equally to the PSTN and Existing 911 networks
- New development on this old technology is on the decline and support is becoming more expensive
- New graduates from college aren't seeking opportunities to work on old technology
- New "telecom" jobs are focused in the broadband, wireless, and non-traditional space

Legacy 911 Networks

- Despite technology advances, and with very few exceptions the legacy 911 networks haven't changed substantially since the first 9-1-1 call in 1968
- Support for enhanced services (VoIP and Wireless) have been bolted on legacy technology
- Similar technology and support issues will begin to plague the 911 network
 - Higher costs
 - Inability to adapt to advances
 - Lack of skilled workers

NG-911 and all IP Networks

- The conventional wisdom is the transition to NG-911 will require a lengthy transition time frame (spanning 10 or more years)
- Accelerating transition to IP Services, accelerating costs to support the legacy network, and lack of support will force this upgrade more quickly
- Transition to all IP Networks means
 - Traditional providers of services will change
 - Real time communications will be provided over the top
 - New services must be “emergency” enabled

Preparation

- Funding – new paradigms required
- Policy
 - Regulations need to consider non-traditional providers
 - Emergency communication needs to be considered as part of new real time communications services
- Training – public safety and general public needs to understand changes coming
- Liability Protection – need to examine state liability protection to ensure it covers new services and all parties