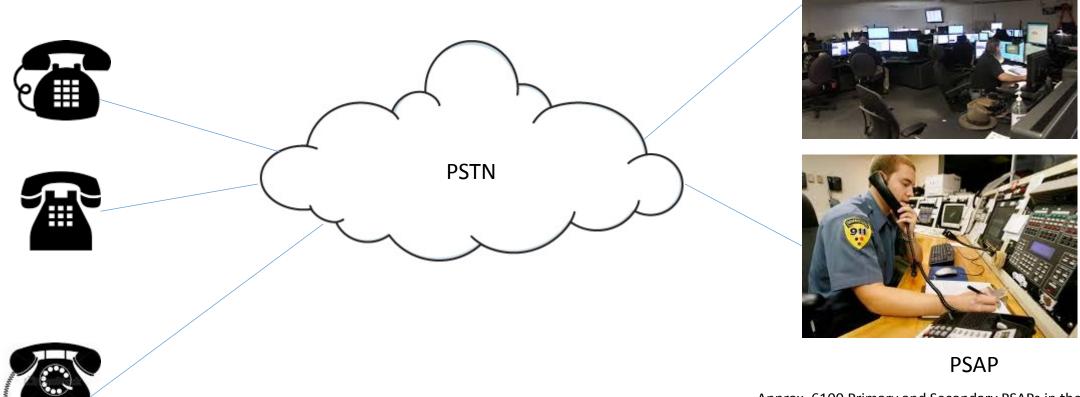
Emergency Response Framework

Ashok Agrawala

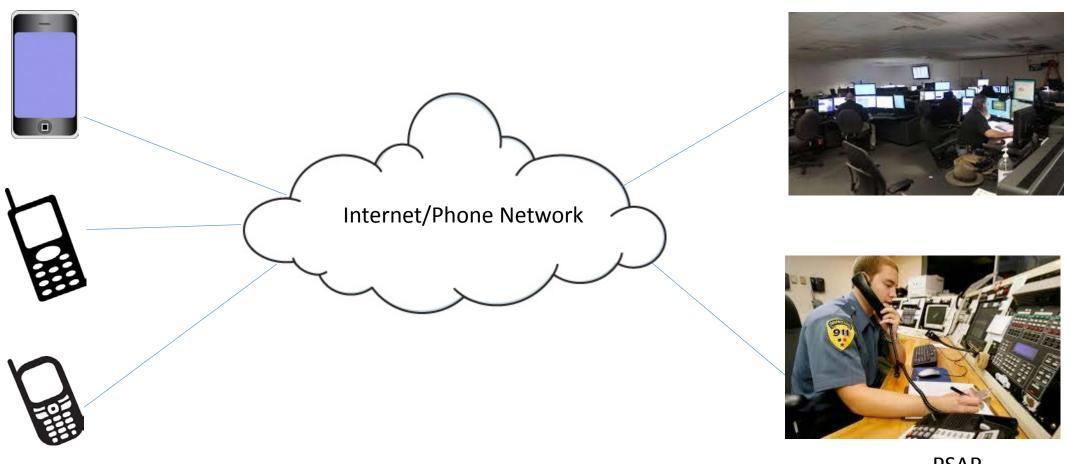
University of Maryland

Current 911



Approx. 6100 Primary and Secondary PSAPs in the US
Handle, Police, Fire, and EMT requests
Need information about –
What is needed
By Whom
Where

Future 911



PSAP

Future Emergency Response

- Caller
 - Using smart phones
 - Compute Power/storage
 - Communication 4G, WiFi Internet Connectivity
 - Other sensors camera,...
 - Victim/Third Party
 - Anonymous tip
- Modes
 - Immediate call
 - Delayed Escort mode

- Communication
 - Internet
 - Audio/Video/Data
- Location
 - Smart Phone based system
- Call Routing
 - Geofences

PSAP

- Integrating with current operation
 - Audio for a call may have to come through as a regular phone call
 - SIP integration
 - All information has to be logged securely with the chain of custody maintained
 - Call Transfer along with metadata and continued audio, video and sensor data

Future Emergency Response

- Calls may be for
 - EMT response for isolated incident
 - Complex
 - Natural disaster
 - Terrorism
 - Group Actions
- Calls for Better Situational Awareness and integrated response when needed
 - Access to various sources of information
 - Cameras/sensors in the area
 - Accurate location Which building/floor/room
 - ...
 - Ongoing role in the response
 - Command Role
 - Situational awareness of the incident scene
 - ...

Response Center of Tomorrow

- Not simply call answering and dispatch function
- Monitoring the response
 - Information from the scene
 - Accessing other relevant information
- Forwarding information to the responders as needed
- Transferring the command to a mobile command center in the field

• ...