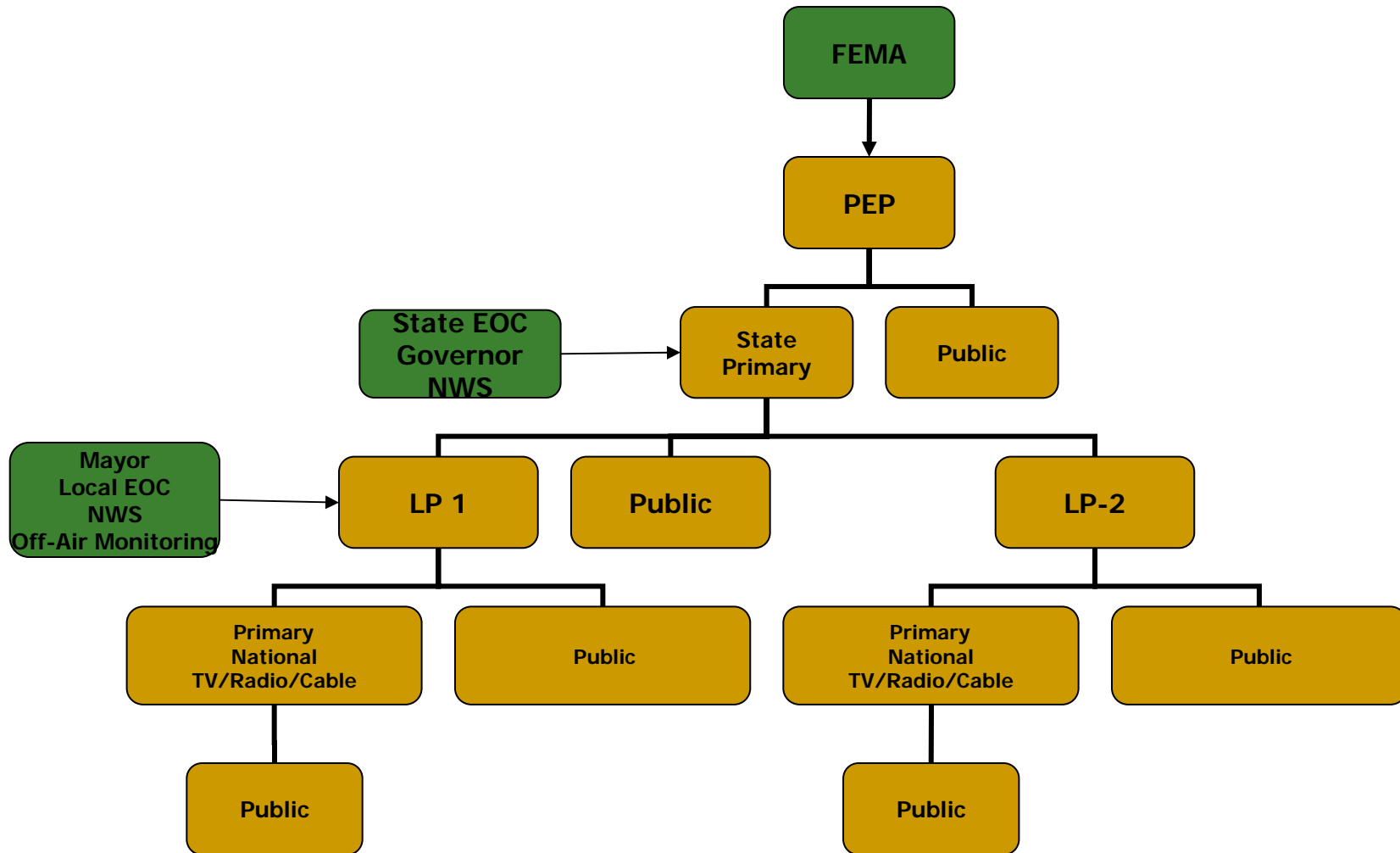

Emergency Alerting Systems

Presented By:
Walter Johnston
Communications Systems Analysis Division
Public Safety and Homeland Security Bureau

National EAS

- ❑ Emergency Alert System
 - Implemented in 1994
 - Administered by FEMA, FCC, NOAA
- ❑ Analog content compatible with broadcast media
- ❑ Expanded by FCC order in 2005
 - Present
 - ❑ Radio
 - ❑ Television
 - ❑ Cable Television
 - End - 2006
 - ❑ Digital broadcasters
 - ❑ Digital cable TV providers
 - ❑ Satellite Digital Radio
 - May - 2007
 - ❑ Satellite TV

National EAS Architecture



EAS Evolution

- Provide for more effective usage
- Expand information carried
- Expand population reached

Other National Alerting Systems

- **AMBER Alert**
 - ❑ Voluntary program initiated in 1996
 - ❑ Alerts on child abduction
 - ❑ Utilizes EAS, cell phone, Internet, and other distribution mechanisms
- **NOAA Weather Radio All Hazards**
 - ❑ Network of radio stations broadcasting weather, emergency alerts including AMBER alerts
 - ❑ Translations available for special needs

Technology Trends

- Broadcast media transitioning to digital
- Mobile service providers deploying broadband infrastructure capable of supporting wide range of services
- Internet and satellite technology expands capability to distribute alerts
- Alerting protocols developed to distribute and present alerts from multiple systems in standard formats
- Expanding range of devices suitable for alerting
 - Highway alerts, pagers, telephones, computers, cell phones

Emergency Protocols

- Specific Area Message Encoding (SAME)
 - Developed by NOAA, used in EAS
 - Legacy protocol for current system
- Common Alerting Protocol (CAP)
 - Data inter-exchange standard for alerting and event notification
 - Flexible format
 - Provision for text, audio, video
 - Multi-lingual and multi-audience
 - Digital encryption and signature
 - Geographic targeting
 - Controlled by OASIS¹ and supported by ITU
- Emergency Data Exchange Language (EDXL)
 - OASIS¹ development
 - Supports message distribution, resource data exchange, operations, etc.
 - Incorporates CAP for alerting messages

Technology Driven Opportunities

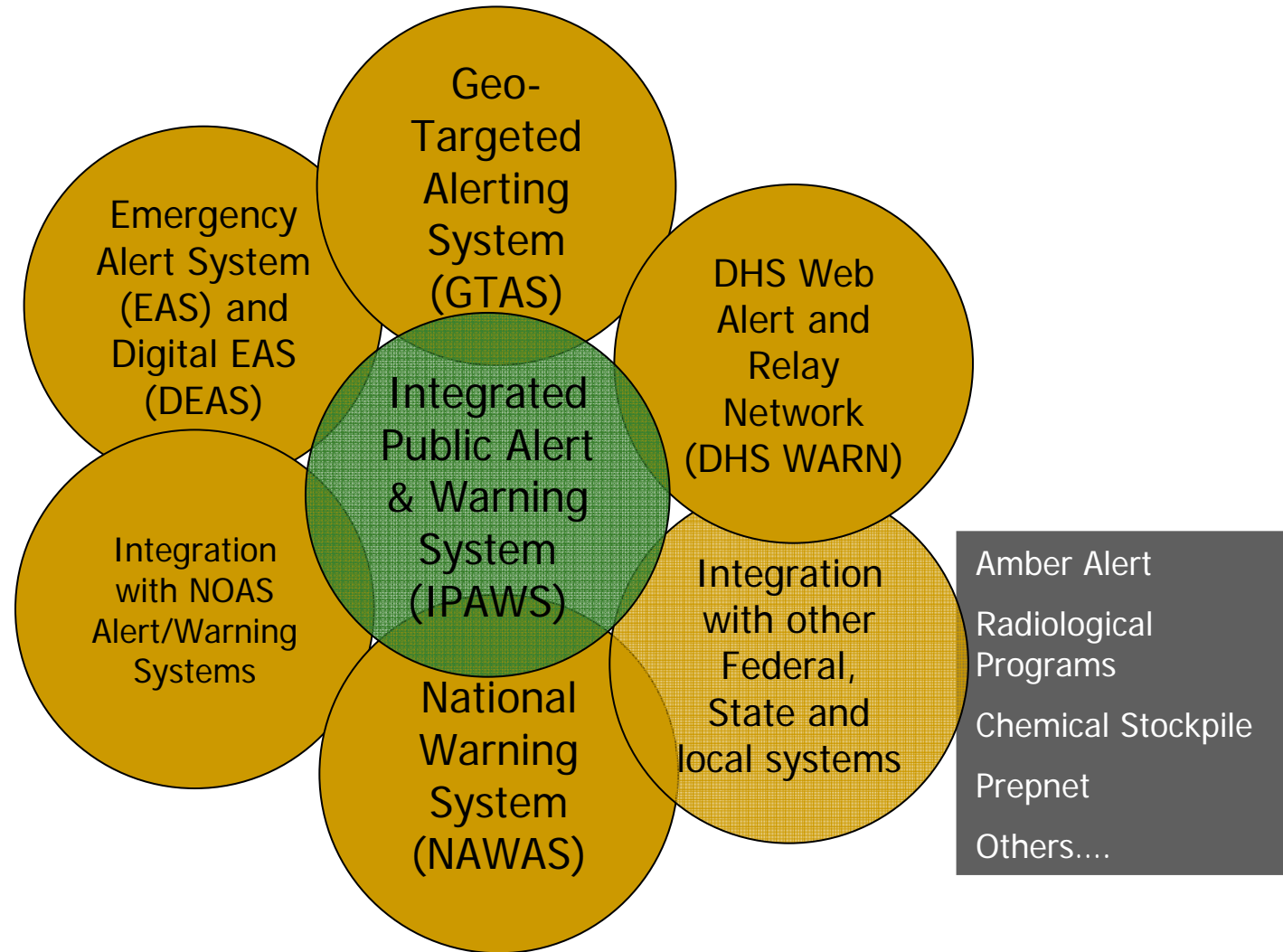
- Ability to integrate alerts from multiple systems
- Capability to sort/distribute alerts by type, geography, subscription, appliance type
- Meet specific user needs
 - Non-English languages
 - Text, audio, video or
 - Special needs

Executive Order 13407

6/28/06

- Recognizes need for expansion of alerting system
- Recognizes opportunities created by technology trends
- Directs Homeland Security to develop implementation plan for alerting system supporting delivery of alerts to the public through as many pathways as possible

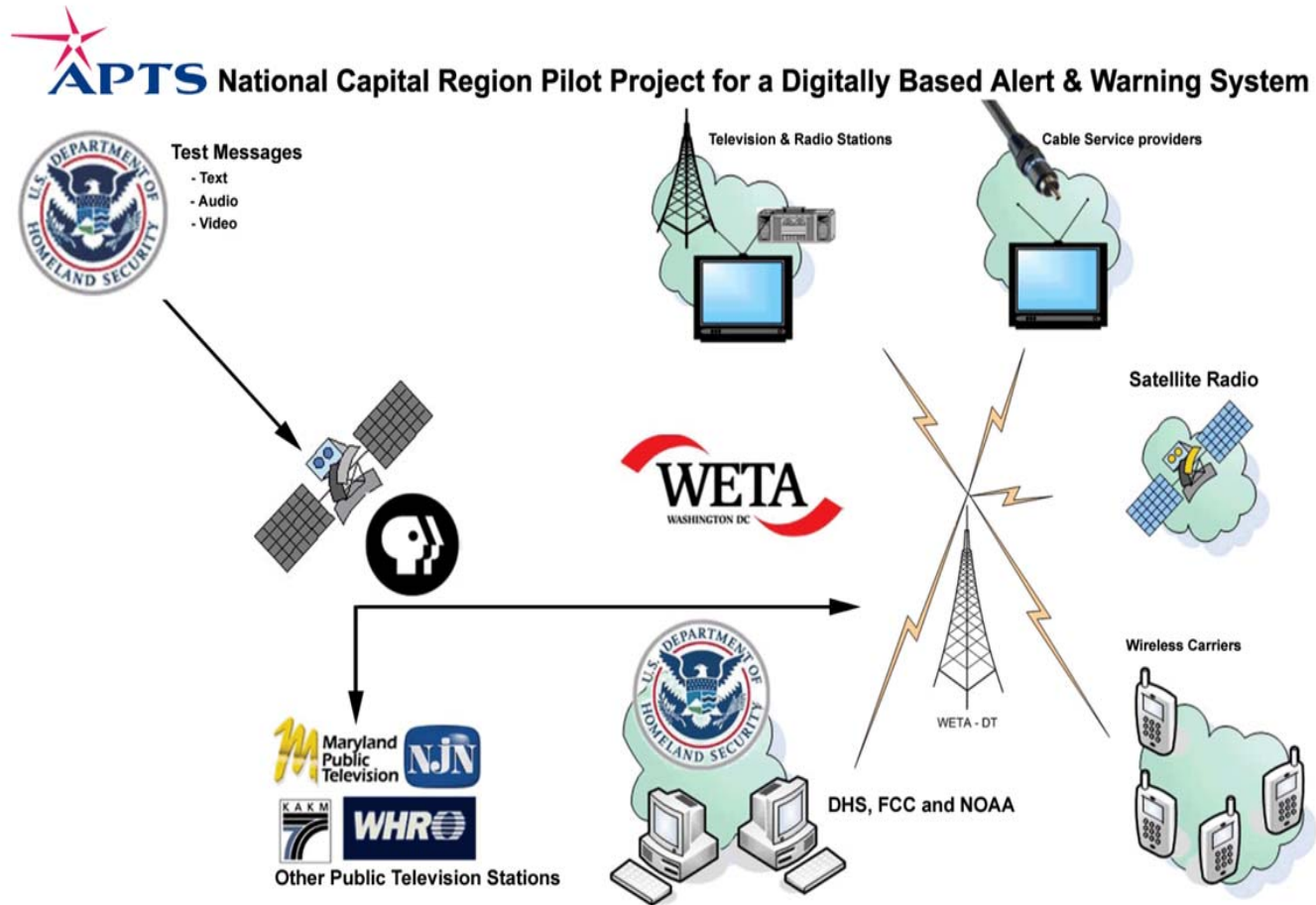
FEMA Initiatives



Integrated Public Alert and Warning System (IPAWS)

- IPAWS is:
 - A DHS-sponsored program to improve public alert and warning
 - System of warning systems (includes both current & new systems)
- DHS led, in coordination with the Federal Communications Commission (FCC), the National Oceanic and Atmospheric Administration (NOAA), and others
- Congress provided \$20 million to improve public warning
- Coordinated with White House Task Force on Effective Warning, co-chaired by DHS and NOAA

IPAWS Pilot



Warn Act Initiative

