

Wireless E9-1-1 Today

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Disclaimer

The content of this presentation is accurate to the best of my knowledge. Any inaccuracy or omission is unintentional. No one should derive any conclusions regarding the worthiness of any Solution based on the content of this presentation.

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A Quick Background

FCC Mandate Docket 94-102 (as amended)

- Phase 1

- ✍️ Wireless providers must be able to provide PSAPs with cell site sector location info (pANI) and call back number (CBN) for wireless E9-1-1 calls
- ✍️ Wireless provider needs to provide this only if a request is received in writing, & the PSAP can receive and utilize the data
- ✍️ Wireless carriers must be compliant within six months after a qualified request is received



A Quick Background (cont.)

FCC Mandate Docket 94-102 (as amended)

- Phase 2

✎ Wireless providers must supply Phase 1 data PLUS the location of the caller at the time they placed the call. Location is expressed as two decimal numbers commonly known as x, y. The location data must be within certain accuracy parameters dependant upon the type of location determination technology in use.



Common Beliefs or Expectations

- Phase 2
 - ✍ It is widely believed that the x, y data will be used by some form of automated electronic mapping technology to rapidly display a meaningful location to the calltaker
 - ✍ There are many such applications commercially available today



Common Beliefs or Expectations

- Phase 2 (continued)
 - ✍️ The preceding statement does not preclude a PSAP from being able to “utilize” the x, y data in some other way, even if that means manually determining the caller’s location on a paper map
 - ✍️ Obviously an automated solution will be faster, and potentially more efficient



Common Beliefs or Expectations

- Phase 2 (continued)

- ✎ Although Phase 2 was originally expected to be available by October 2001 to PSAPs requesting Phase 2 compliance, the FCC updated the guidelines to allow many wireless carriers more time to get started delivering Phase 2 calls.

- ✎ In brief, some wireless carriers will begin delivering Phase 2 calls early in 2002, but some may not be fully compliant for several years.



A TIP FOR PSAPs!

- ✍️ Phase 2, just like Phase 1 will get here no faster than PSAPs demand it!
- ✍️ A Phase 1 Solution must be in place PRIOR to going to Phase 2
- ✍️ If the PSAPs don't push the "GO" button, some areas of the country will never be compliant.
- ✍️ Don't let that happen in your community!



Wireless E9-1-1 Operational Issues

From the perspective of the
E 9-1-1 Service System Providers



Functions Performed by the SSPs

- Interconnection trunk orders, design support, order processing support, install and test support
- NCAS/SCP data link orders, design support, order processing, install and test support
- SR upgrades for Hybrid
- MSAG content and Fixed ALI record entry



Functions Performed by the SSPs

- PSAP trunk group sizing and additions, orders, install and test support
- PSAP trunk group upgrade to E-MF if applicable
- If the SSP is the CPE vendor, any changes in configuration, upgrades etc.
- Overall SME support to all parties



Getting The Right Start

- A successful partnership requires and accomplishes -
 - Common Objectives
 - Cooperation
 - Coordination
 - Understanding
- ‘LECs’ and 9-1-1 Service System Providers often are different animals - don’t assume !



Getting The Right Start (continued)

Projects that are:

- planned (even just a little !)
- communicated
- and then managed

usually take less overall time and create less frustration for all parties to reach the desired results.

This is often not intuitive !



Types of Ph-1 Solutions

- CAS - Callpath Associated Signaling
- NCAS via “Black Box”
(Non-Callpath Associated Signaling)
- NCAS via an SCP
- “Hybrid” via Local Service Provider
- Others? (Not that I’m aware of.)



Phase 1 So Far - Generally

- Implemented as a solution for WSPs with consideration for Public Safety
- Thousands of PSAPs in service with at least one WSP
- “Can” be provided to most existing PSAP equipment without any CPE upgrade, but “may” require ALI-DB &/or SR modifications
- Delivers FCC required information



Lessons Learned

- Stand Alone ALI Data Bases
 - Usually restricted to using CAS unless the PSAP connects to the E9-1-1 SSP's ALI -DB for (at least) wireless calls, or to some other ALI-DB capable of retrieving dynamically created wireless records from the DB they were created in. (example: ALI steering from one DB to the one with the records)



Lessons Learned

- Stand Alone ALI Data Bases
 - As an alternative to the preceding bullet, “direct data links” into the Stand Alone ALI-DB could accomplish delivery of the Phase 1 data to the calltaker via ALI, although this may present a logistics problem in trying to connect multiple WSPs.



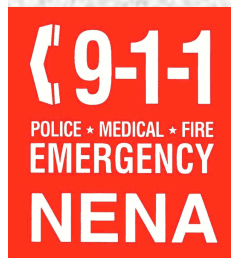
Lessons Learned (cont.)

- CPE Interactions
 - Some CPE needs tweaked to allow presentation of the CBN on the ALI screen. (Most NCAS & Hybrid Solutions deliver the CBN in the ALI response, in the “ALTERNATE NUMBER” field, aka: ALT# or an equivalent field).



Lessons Learned (cont.)

- ALI-DB & SRDB Interactions
 - Some PSAPs experience an increased quantity of NRFs after implementing Phase 1
 - Usually this can be attributed to a WSP sending pANIs into the E9-1-1 Tandem prior to those pANIs being entered into the appropriate ALI-DB &/or SRDB
 - **ONLY** the WSP can resolve this situation!



Phase 2 Migration Plans

- Most Hybrid and NCAS Solutions will be upgraded to provide x,y coordinants via an E2 interface path
- ISDN between the E9-1-1 Tandem and the PSAP is the only existing technology that would allow Phase 1 CAS to be Phase 2 compliant
- Other technologies will become capable of carrying Phase 2 data to the PSAP, and the NENA NTC is working on initial development of recommended standards now.



In Closing

**Cooperation and Coordination are
the key to a smooth implementation!**

INSIST ON IT!

HELP DELIVER IT!



Any Questions?

Refer questions that may come up later to:

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THANK YOU!!!

