Welcome

GIS Applications for Wireless

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E9-1-1 Mapping Issues

- Wireless - FCC 99-245
  - Phase I
  - Phase II – October 1, 2001
    - http://www.fcc.gov/Bureaus/Wireless/News_Releases/1999/nrwl9040.html
    - For network-based solutions:
      - 100 meters for 67 percent of calls,
      - 300 meters for 95 percent of calls.
    - For handset-based solutions:
      - 50 meters for 67 percent of calls,
      - 150 meters for 95 percent of calls.

GIS/Mapping Issues with E9-1-1

- Reverse Geocoding for Wireless
- Locate Address / Intersection
- Locate Common Place
- Visual Recognition of Boundaries
- Drive Directions
- Unit Recommendation by Shortest Path
- Coordinate Based Map

Types of Mapping Applications

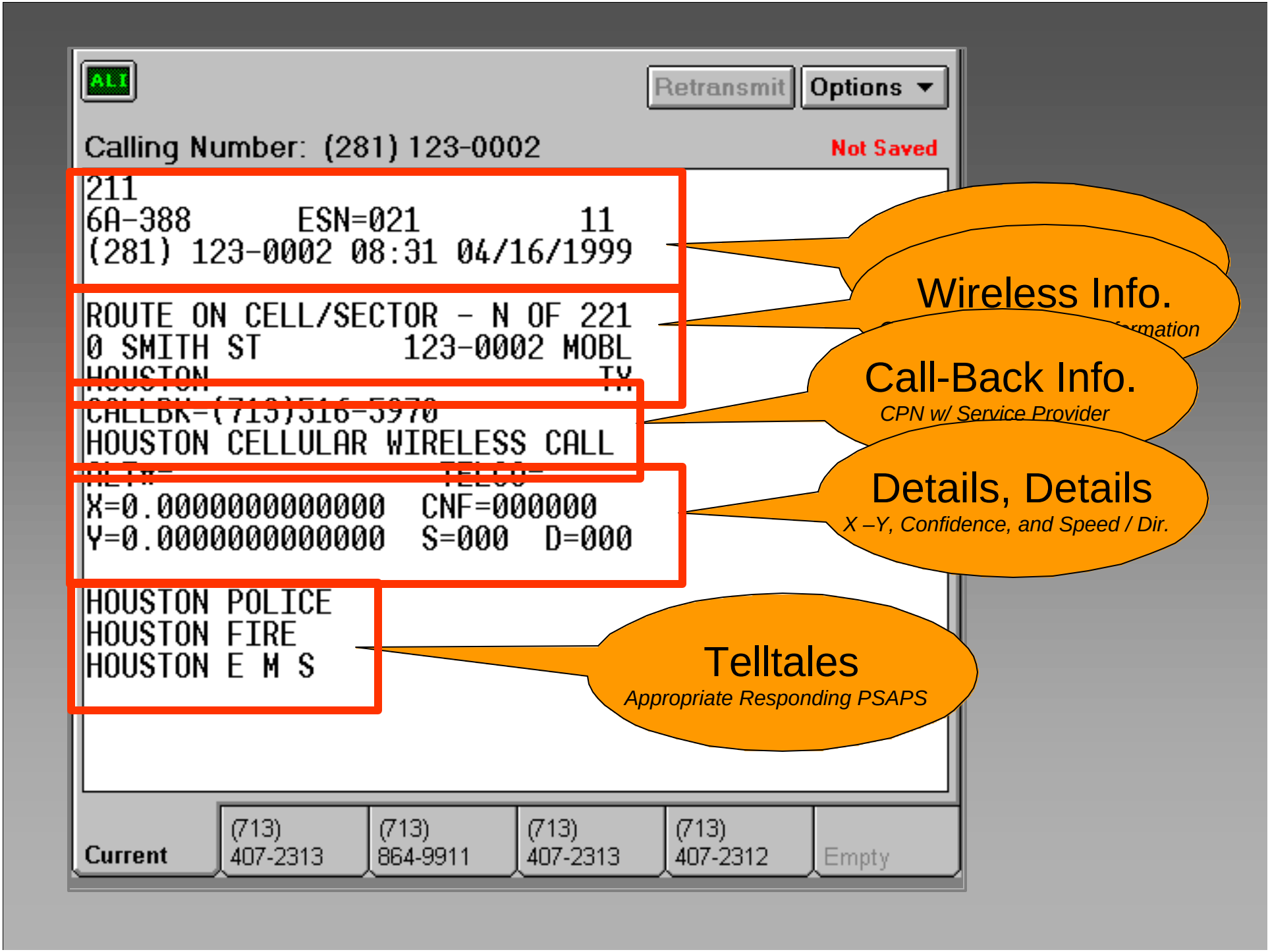
- **Data Maintenance Application**
  - **Create base layers**
  - **Update layers with changes**
    - **Add new roads**
    - **change ESN Boundaries**
    - **change road names**

Types of Mapping Applications

Map Display

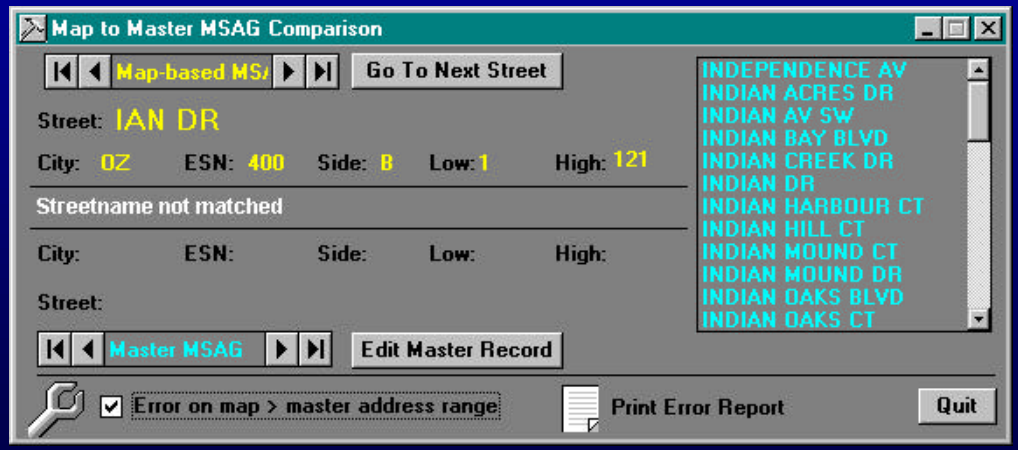
- Multi-system interface capable
- CPE independent
- Coordinated based
- Utilizes all wireless data

Let’s take a look at a wireless call


ALI
Retransmit
Options
Calling Number: (281) 123-0002
Not Saved
211
6A-388 ESN=021 11
(281) 123-0002 08:31 04/16/1999
ROUTE ON CELL/SECTOR - N OF 221
0 SMITH ST 123-0002 MOBL
HOUSTON TX
CALLBK-(713)516-5970
HOUSTON CELLULAR WIRELESS CALL
X=0.000000000000 CNF=000000
Y=0.000000000000 S=000 D=000
HOUSTON POLICE
HOUSTON FIRE
HOUSTON E M S
Wireless Info.
Call-Back Info.
CPN w/ Service Provider
Details, Details
X –Y, Confidence, and Speed / Dir.
Telltales
Appropriate Responding PSAPS
Current
(713) 407-2313
(713) 864-9911
(713) 407-2313
(713) 407-2312
Empty

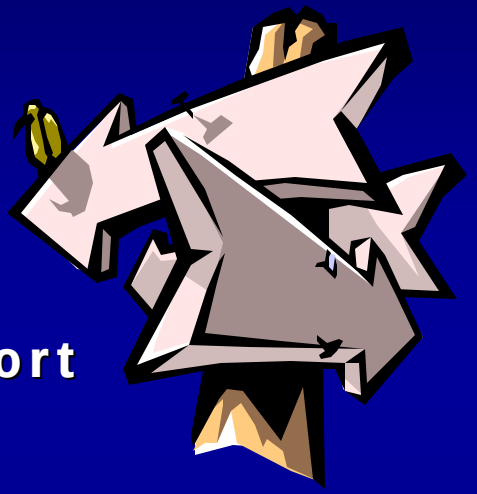
Managing the Map

- Map data maintenance
- MSAG maintenance
- MSAG validation with Telco
- Map books



Making an evaluation...

- Wireless / Phase I & II
- Multi-system interface
  - Telecom
  - CAD
- Integration / 3rd party support
  - Message switch, AVL, etc..
- Integrated Mapping
  - Complete call-to-car mapping
- Intuitive - Easy to use
  - Fast, accurate, updated
- Training / Service / Support
  - Migration and maintenance is essential



Times Are Changing…

The 9-1-1 desktop is evolving!

CTI, Radio, Audio, TTY, Mapping, MIS, etc…

Questions?

Comments?

Your feedback is essential!

Thank You
for Your Time!

Please feel free to contact me:

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