Wireless 9-1-1 Phase I & II
3rd Party Providers

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9-1-1
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NENA

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Defining 3rd Party Provider

- A company other than a wireless carrier or local exchange carrier that contributes to implementing wireless 9-1-1, by some or all of the following:

  - Implementation management

  - Contract management with LECs and PSAPs.

  - Database provisioning and real-time ALI transport.

  - Assist in cost reimbursement from state agencies.

  - Follow up support to track changes (e.G., Cell sector coverage, ESZs, PSAP coverage areas).
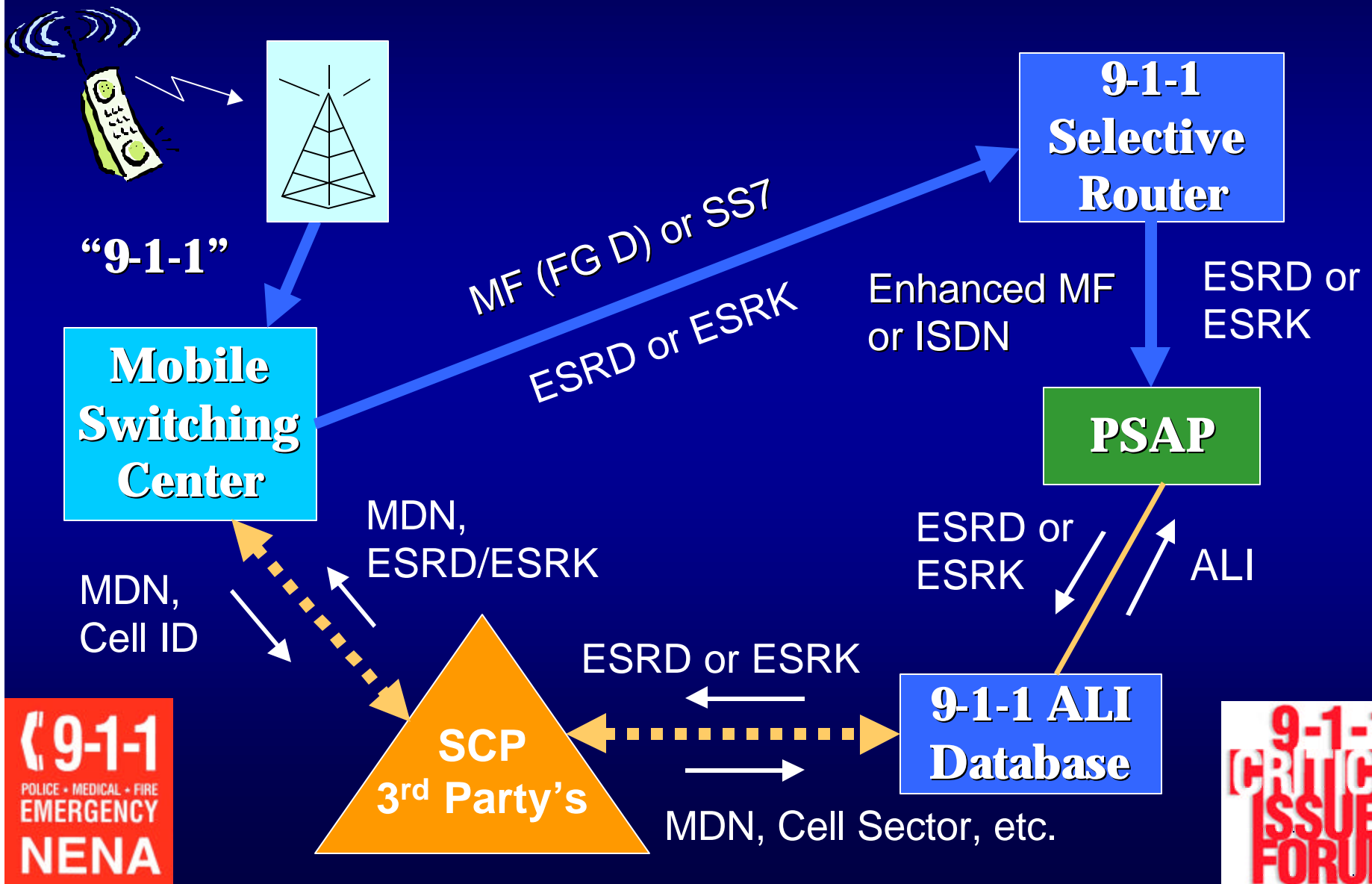
3rd Party Provider Value

- Very efficient in providing highly specialized services, many of which are needed for a short time.

- Provides services across different LECs with their unique (at least in tariffs) connectivity requirements.

- Provides connectivity to different ALI Databases (Covers the range from LEC regional, to stand-alone computers in PSAPs) with their different ALI interface requirements.
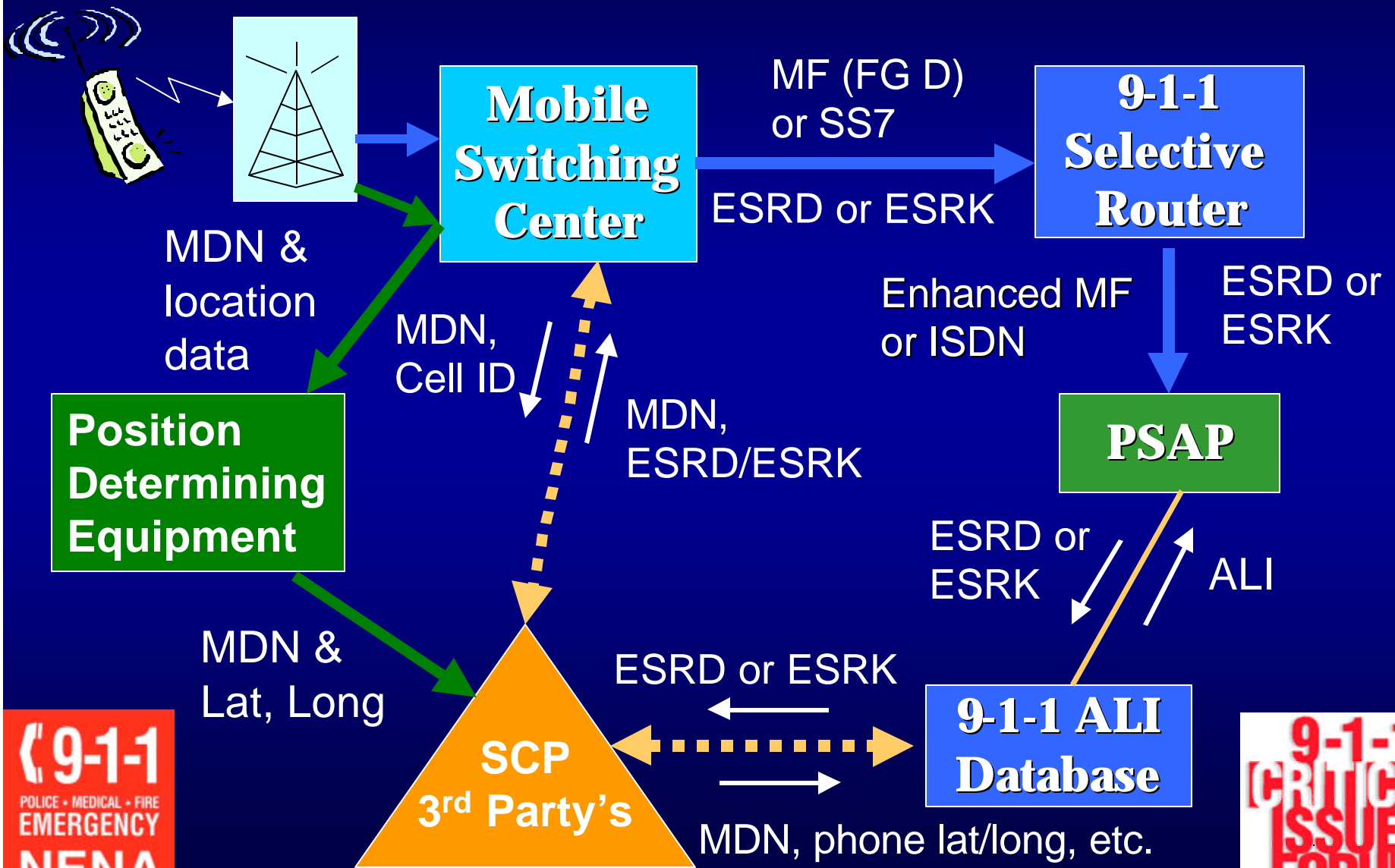
3rd Party Function Used in NCAS

- 3rd Party Services are used in Non-Call Path Associated Signaling (NCAS) Solution

- NCAS uses two paths from MSC to PSAP:
  - <u>Call Path</u> – Voice path with call identification set of 8- to 10-digits (i.e., ESRD or ESRK)
  - <u>Non-Call Path</u> – Data path that provides the ALI info (e.g., MDN, cell tower location in street address and lat/long, company ID)

Phase I NCAS Solution

Phase II NCAS

Required from Wireless Carrier

- Mobile Switching Center Information
  - Name of MSC and street address
  - Switch model and software version (W9-1-1 Ready?)
  - SS7 Configuration to 3rd Party: IS-41 or ISUP
  - CLLI (for voice network)
  - Point Code (for SS7 data path)
  - NENA Company ID for ALI records
- Cell Tower Information
  - Sectors and their coverage (including maps to PSAPs)
  - Street Address and Latitude & Longitude
  - Cell Sector ID numbers

Required from LEC

- 9-1-1 Selective Router Information
  - Name, Street address and CLLI Code
  - Type (e.g., 5ESS, , DMS-100, ECS-1000)
  - Trunk Connectivity Available (SS7 or MF)
- Trunking types and costs
- ALI Record Information
  - ALI database input for ALI templates (MSAG)
  - ALI Interface for dynamic ALI delivery

Required from PSAPs

- Source of their ALI (LEC or stand-alone)
  - If LEC, who is their database contact
  - If stand-alone, vendor name and whether an ALI interface is available for data connection
- Which 9-1-1 Selective Router serves them
  - ESN to be used for routing to that PSAP
- Cell Sector Information for ALI Records
  - Decision on what cell sectors will be served
  - Description of coverage for ALI record comments

Required From All

- Contact Information
  - Project Manager (equivalent)
  - Account Executive (except for PSAPs)
  - Support for 24 hours x 7 days/week availability
- Contracts or Equivalent
  - Wireless Carrier contract to delineate services
  - LEC tariffs or contract (especially for ALI Interface
  - PSAP contract for service and cost recovery
- Cooperation in planning, implementing and testing

Wireless 9-1-1 Acronyms

- ESRD – Emergency Services Routing Digits. 8- or 10-digits that represent the cell sector that received the initial wireless 9-1-1 call.

- ESRK – Emergency Services Routing Key. 8- or 10-digits that represent the PSAP to which the call should be routed.

- MDN – Mobile Directory Number. Wireless caller's phone number.

- MF – Multi-Frequency. Transmitting data via tones in-band. Used in analog trunking. ANI is MF.

- SS7 – Signaling System 7. LEC transmission consisting of trunks between switches for transport and separate out-of-band signaling for network control (setting up path). Caller ID is SS7.