

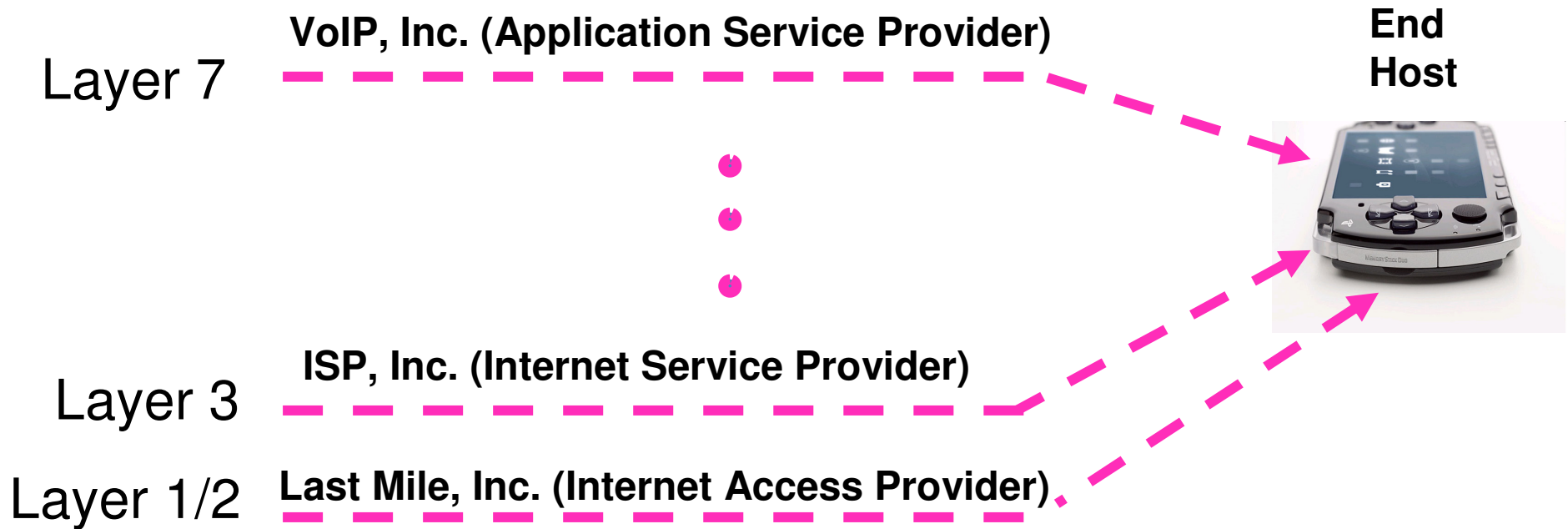
Internet Standards - Emergency Services

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Architectural Considerations



Architectural Considerations, cont.

- ISP/IAP has the technical means to know the precise location of the end host.
- ASP, ISP and IAP are, in some cases, different entities.
- Internet is a world-wide network; end points go everywhere – services come from everywhere.
- There are a multitude of different business models with
 - Many different protocols being used
 - Long time to migrate and devices / networks with very different capabilities

Note

IETF Emergency Services work assumes IP-based PSAPs to be present in the future emergency services architecture.

Architectural descriptions for how to interworking with legacy PSAPs can be, for example, found in the NENA i2 specification.

- http://www.nena.org/media/File/08-001_20051205.pdf

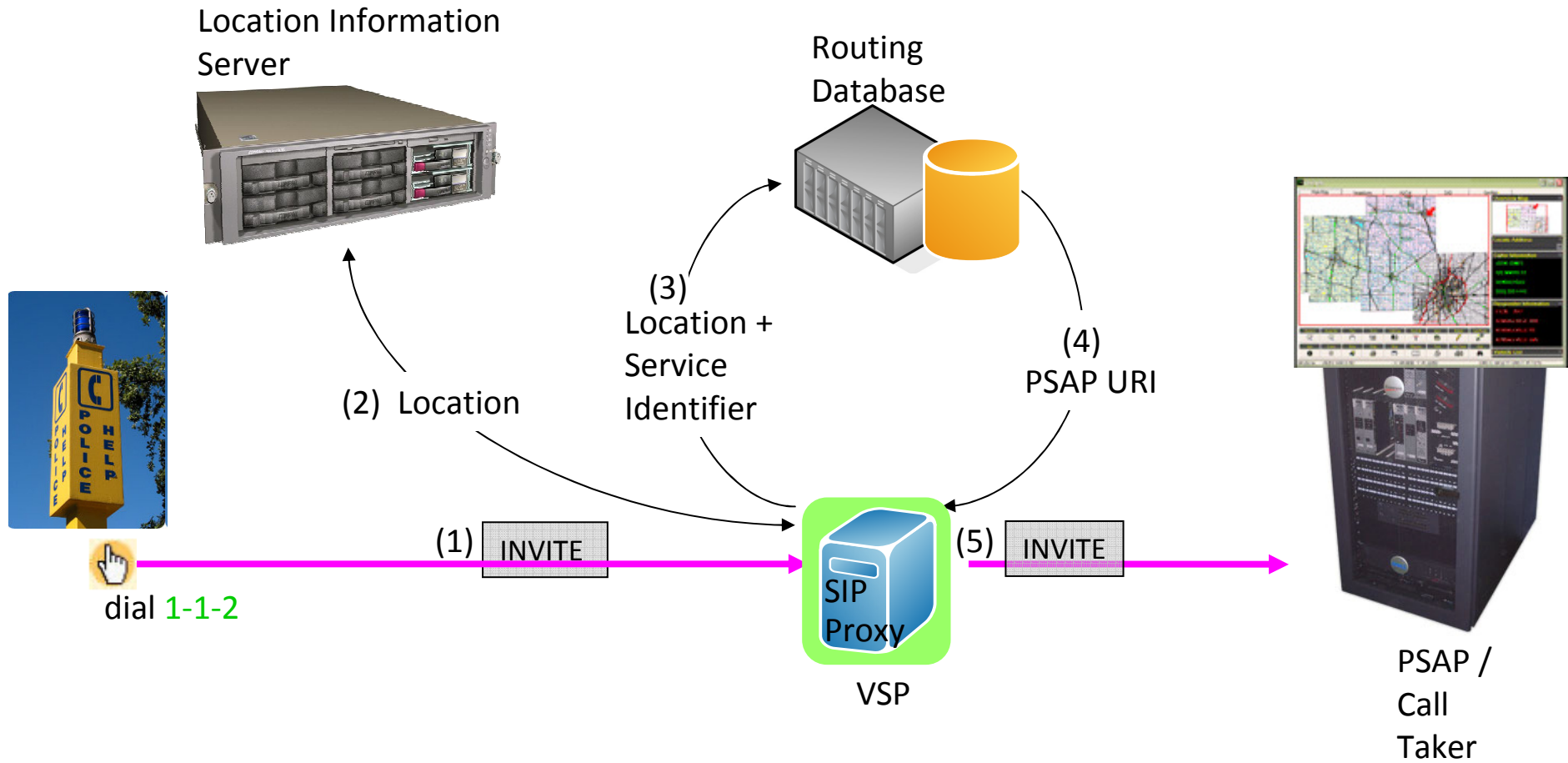
The IETF emergency services architecture DOES NOT require SIP being used between the User Agent and the VSP.

Emergency call handling is intentionally as close as possible to ordinary call handling.

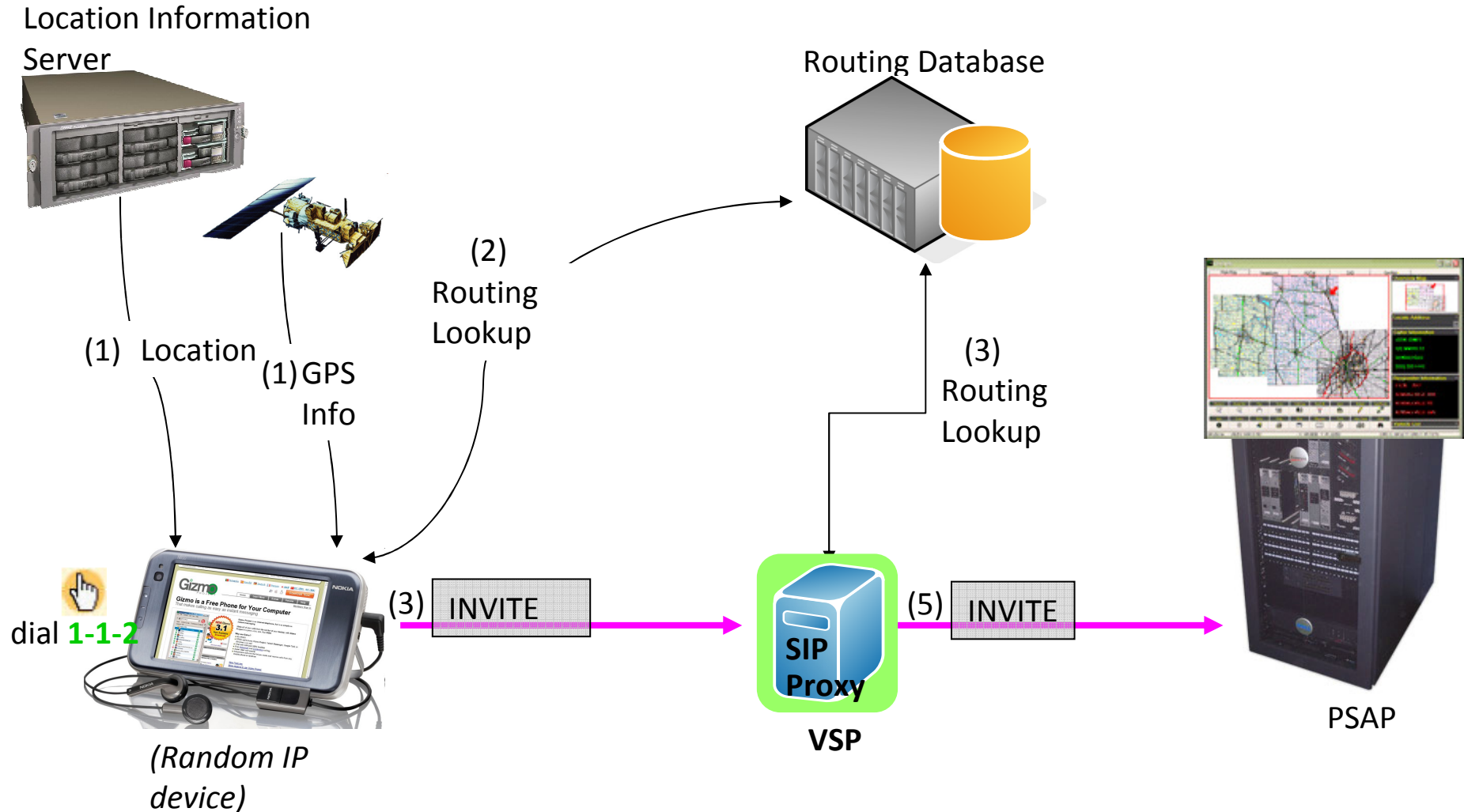
Note, cont.

- Specifications can be found here:
 - IETF ECRIT Working Group
<http://www.ietf.org/html.charters/ecrit-charter.html>
 - IETF GEOPRIV Working Group
<http://www.ietf.org/html.charters/geopriv-charter.html>
 - IETF SIP Working Group
<http://www.ietf.org/html.charters/sip-charter.html>

“Legacy End Points”



Fully Upgraded End Device



High-Level Summary of IETF Work on Emergency Services

- Emergency Call Marking solution available
- Location
 - Format of location information (civic and geo)
 - Protocols for obtaining location
- Emergency Call Routing protocol developed that works on a world-wide scale
- Standardization of the emergency call procedures for SIP (end host, VoIP provider, PSAP)

Challenges

- Unclear regulatory situation
- Difficulties to understand the Internet-way-of-working
 - Roles not well understood
 - Too many country-specific approaches
 - “incentives” instead of “penalties”
- Business models challenging
 - Liability
 - Different financing models
 - Pushing responsibilities around
- Coordination between the different stakeholders not easy
- Establish accountability to deal with hoax calls

Emergency Services Workshops: How to get involved?

- The Emergency Services Workshop is not a membership organization, but rather an ad-hoc forum for discussions about emergency services. There are no entrance requirements and no fees (other than a small amount to cover meeting costs). To get involved:
 - *Join the e-mail list:* Subscribe to the mailing list (<https://lists.cs.columbia.edu/cucslists/listinfo/es-coordination>) for discussions and information sharing in the context of emergency services
 - *Come to a workshop:* The next meeting is currently being planned. Notifications will be sent to the coordination email list above.
- More information can be found at the main workshop page: <http://www.emergency-services-coordination.info>

Near Term Activities

- Useful to talk about emergency services standardization activities; but not enough ...
 - Re-structuring of emergency services workshops
 - More focus on (open source) implementation and interop testing
 - Example deployment setups
 - More extensive investigation of DoS and security aspects
- Please contact the ESW team if you would like to get involved.