



Emergency caller location in an internet world

Roundtable on European Emergency Number 112
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Why does one need a E112 caller location system?

- **IT'S ALL ABOUT IMPROVING RESPONSE TIME**
- More than 2% of the genuine emergency callers in the UK actually are not able to provide **ANY** type of information about their location.
- 150 Million EU citizens are traveling cross borders within the EU every year, not all of them will know their location in a case of emergency, if they do, will they be able to communicate it effectively?
- EC website about each member states E112 response time, the availability of the location information, its accuracy, the languages, etc.
 - http://ec.europa.eu/information_society/activities/112/ms/index_en.htm
- So E112 caller location already exist for my mobile phone, doesn't it?

Network-Based Caller Location System in place for the past 10 years

- Operators must deliver to PSAPs 911 caller location within 100 meters on 67% of calls, within 300 meters on 95% of calls.
- Operators must deploy network-based E911 location systems In Response to PSAP Requests
 - *Within 6 months* of a PSAP request, carrier must deploy E911 Phase II to *cover 50%* of PSAP/service area or subscribers.
 - *Within 18 months* of a PSAP request, carrier must deploy E911 Phase II to *cover 100%* of PSAP/service area or subscribers.

- **OLD: “...to the extent it is technically feasible, location information shall be made available to Emergency Services...”**
- **NEXT: “caller location information shall be delivered as soon as possible to the authorities handling the call...”**

Commercial Services

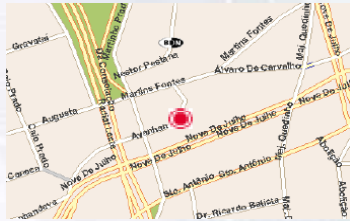
Enterprise

Asset Management, Productivity Enhancement,
Fleet Management, Service Dispatch



Consumer

Family Locator, Roadside Assistance, Medical
Assistance, Personal Security, Games



Public Safety Location

112, Police, Fire Brigade,
Ambulance.



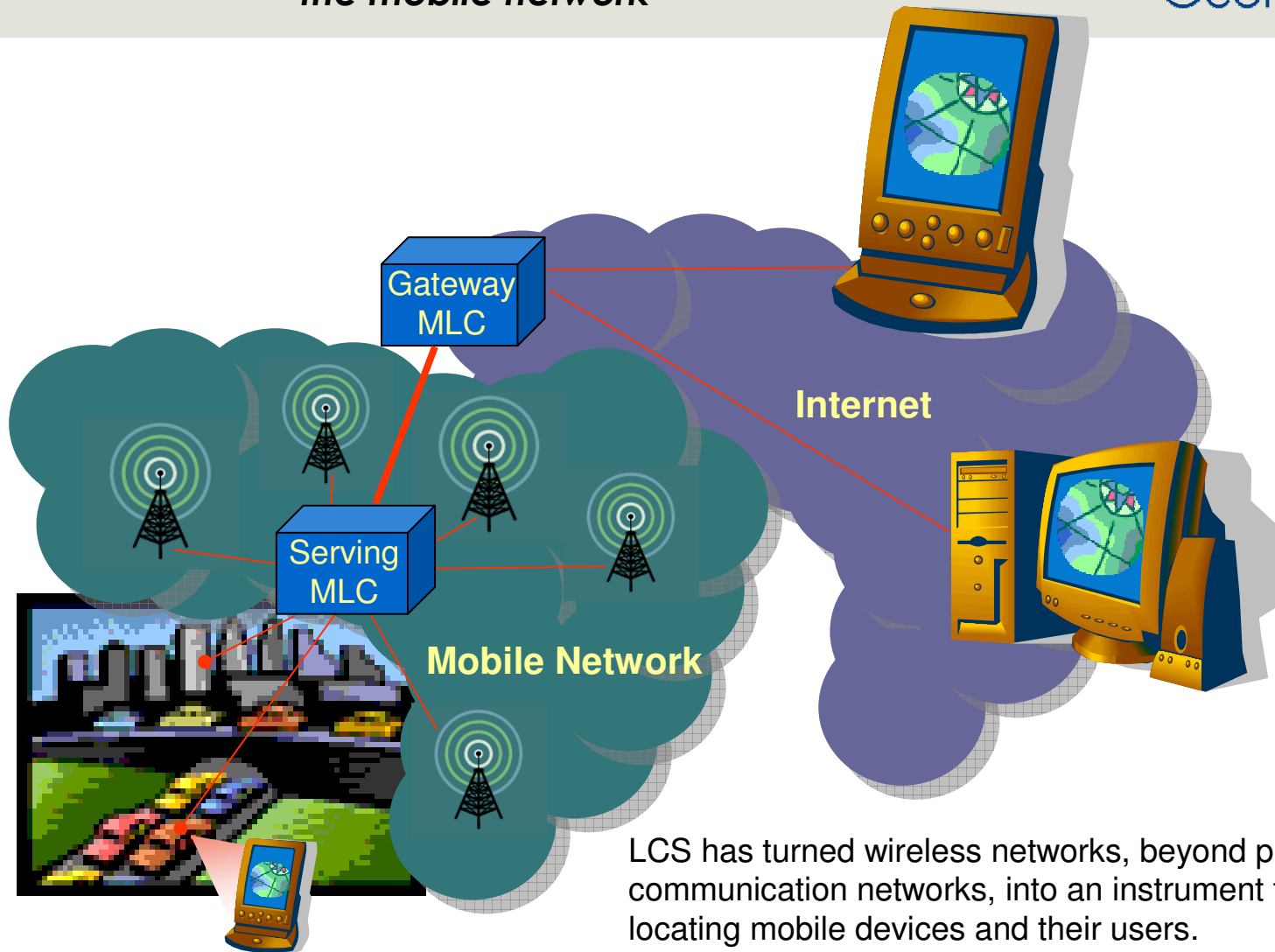
Security Applications

Security Authorities Can
Locate, Track Mobiles
of Interest

Mobile Location

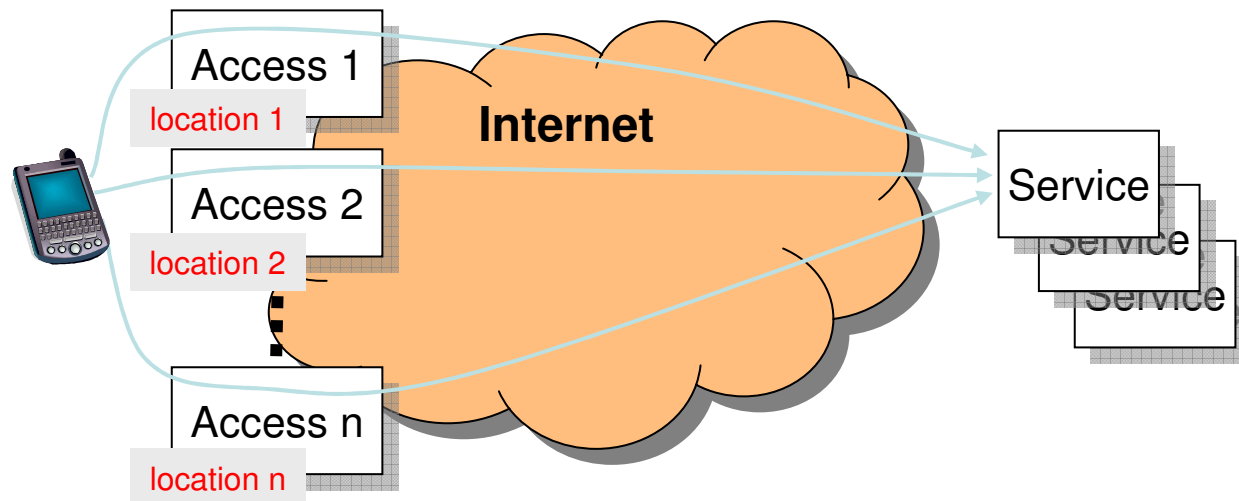
Geo-Location applications on the mobile network

Geometrix®



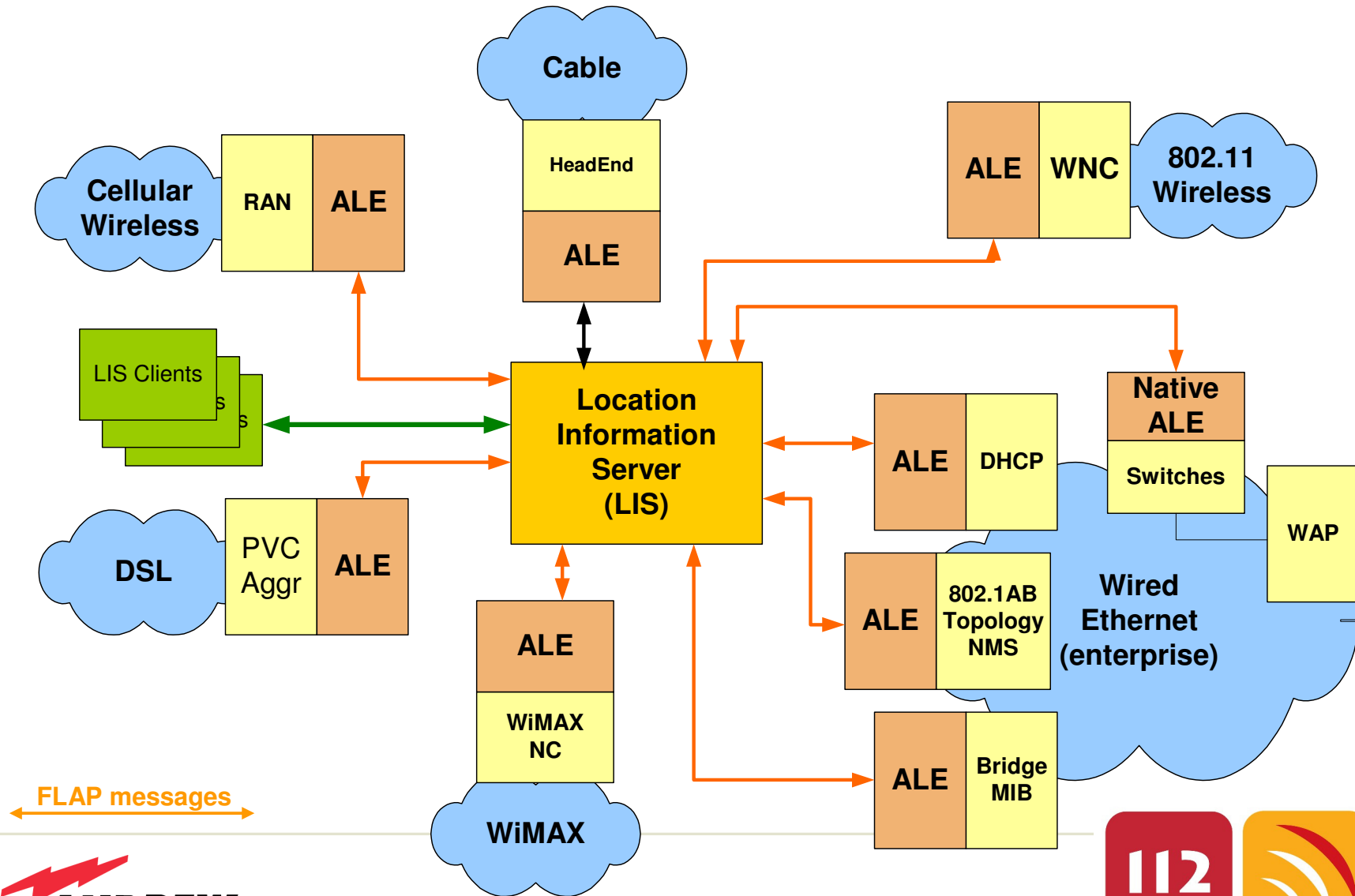
LCS has turned wireless networks, beyond purely communication networks, into an instrument for locating mobile devices and their users.

Internet model: Decoupling of Access and Service-provider



- The Internet model has users connecting to the Internet via arbitrary points of access. Services providers are selected as required and independent of the access provider. For example, a VoIP service can be contracted from a Voice Service Provider who has no relationship with the Internet access provider.
- Service providers can typically not even know how the user is accessing the Internet and certainly don't have the means to determine the location.
- Location is something that the access provider is best equipped to determine.
- **So how can services needing location learn what the IP user's location is?**

Location determination: Model in an all IP environment



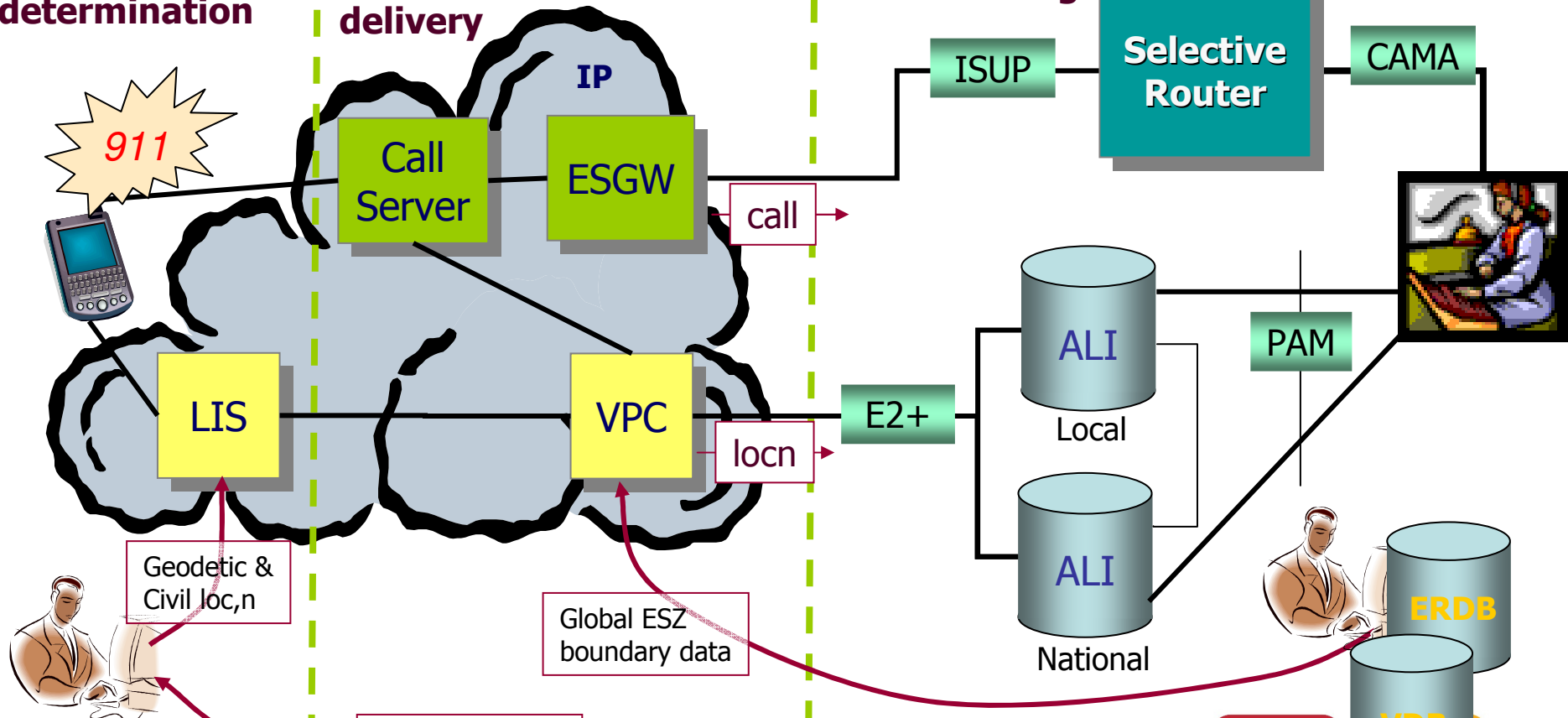
A prime example – emergency services for VoIP in the US

NENA defined (i2) migratory architecture
 Note boundaries of responsibility!

ISP
 Location determination

VSP
 Call routing and location delivery

Emergency network
 Call Handling



The National Emergency entities will eventually have to require location on all mobile and moving devices enabling voice over IP regardless of the underlying network.

As convergence becomes a fact of life, as double and triple play providers emerge, one needs to be able to have access to consistent and reliable location information underneath the service offering.

Allows the LBS service providers to expand their business potential by tackling a wider customer base



Geometrix®

Proven Wireless Location System
for Public Safety and E112 Caller Identification

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