French PSAP solution for victim’s location

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genesis

• 2002: European directive for the Public Safety access to the Caller location;
• Phone company’s response to the French law transcription, poor and delayed;
• Several initiatives using phone apps, tested in rural and mountain situations, but applied to a restricted public;
• Large extension of smartphone equipment in the population.
The main problems

• Solutions based on a pre-loaded smartphone application
  – concerning a restricted population;
  – Several development, no standard;
  – Need a inscription to every websites.

• Emergency call center’s national location platform
  – Poor quality of location: range in Km around the cellular radio site
Mains steps identification

• Cellular GPS equipment generalization
  > 62 % for the whole population
  > 82 % for active population sample

• Phone company network upgrade is needed to provide precise location: “it will take time”

• Good cell cover in most of French landscape

• Html 5 functions `getCurrentPosition()`

  ➢ Growing of cellular owners with GPS and data option
The concept

- Use the cellular browser self-location function
- A html 5 based Website on the net
- The site’s ULR sent to the caller by SMS
- The smartphone owner has to open the URL received
- The website ask the browser to access to the smartphone location (GPS or WIFI)
- The user also has to formally allow the location transmission
Benefits / limitations

Benefits
• **Very precise location**: 5 m
• **Caller allowed** (legal)
• Quick < 120 s
• Durable location settable: movement: from or to guidable
• Hours of search limited to a few minutes for helicopter’s rescue teams

Limitations
• Smartphone with GPS and data access needed
• Distortion inside structure (up to 900 m)
• **GPS enabling (ability)**: User dependent
• Speed depending of local data access GPRS to 4G
Scenario

- PSAP call reception
- Phone Cell number recognition
- SMS sent to the caller phone number including an URL & a singular reference
- By activating the website url, gsm and geoloc PHP based webapp linked
- When allowed, smartphone GPS location sent back to the webapp...
Dessin René Dosne / SPF Mag (édition n° 1086)
Contacts

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6000 Short message sent since 2015

- 70 SDIS + BMPM
- DAM (CROSS + MRCC)
- 4 SAMU
- CNR114
Future improvement

• PSAP Software integration by Soft providers
  – Existing GIS interface for mixing Caller and existing rescues teams following...

• UK Google development on Android Operating system: an automatic SMS send when emergency number is composed

• GenLoc and Geoloc18_112 Hackatlon participation