Report on 2nd NG112 Emergency Communications Plugtest

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Objectives

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1. Goal
2. Achievements
3. Conclusions
4. Update from ETSI SC EMTEL
5. Next steps

Goal

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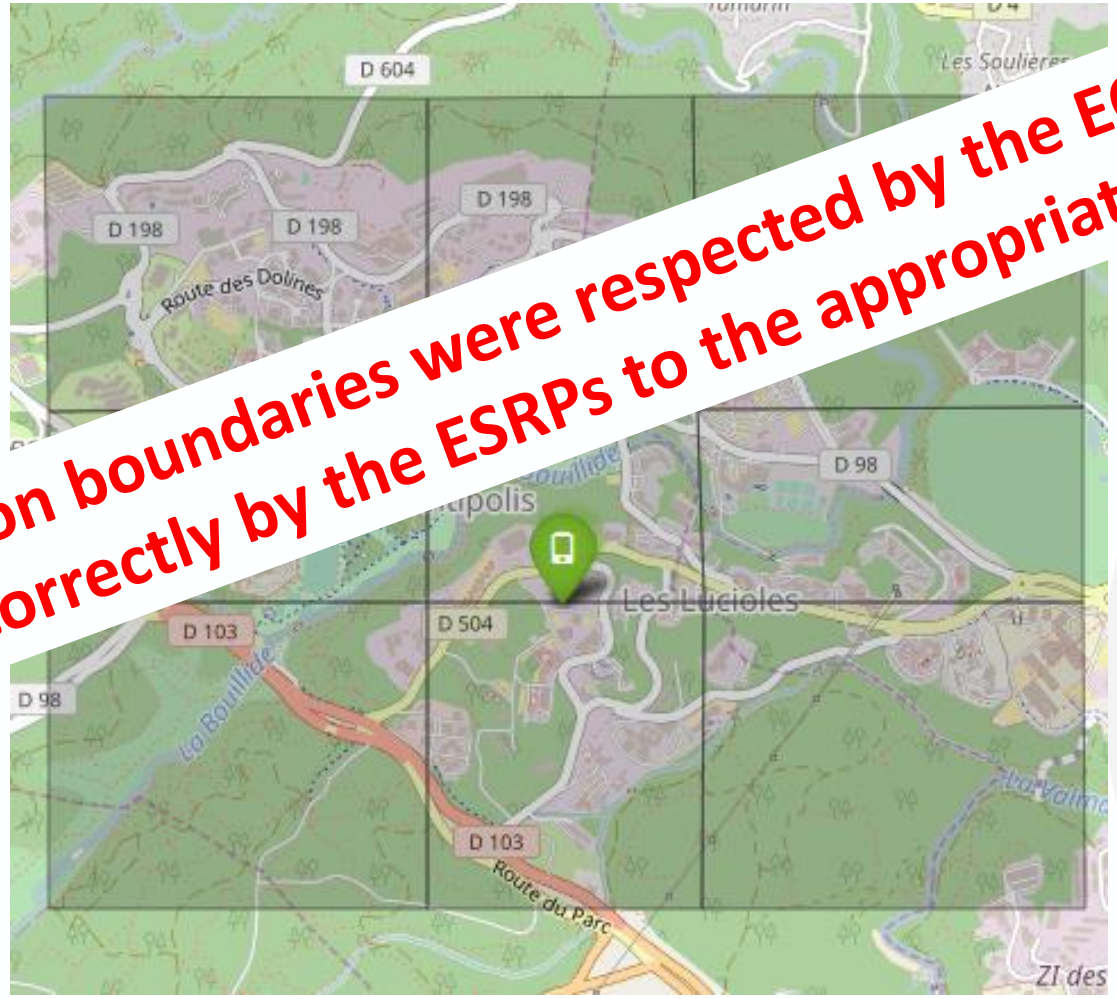
- Independent and joint trial of all components of the 112 communication chain based on Next Generation networks
- Address Location Based Emergency Call Routing and Policy Based Emergency Call Routing
- Have a view on the maturity of the technology
- New in 2017
  - Next Generation Media Types (video calling and TOTAL conversation)
  - Advanced Mobile Location (AML)
  - Pan-European Mobile Emergency Application (PEMEA)

Achievements

Participants

PSAP Service Boundaries

- Location-by-Reference and Location-by-Value



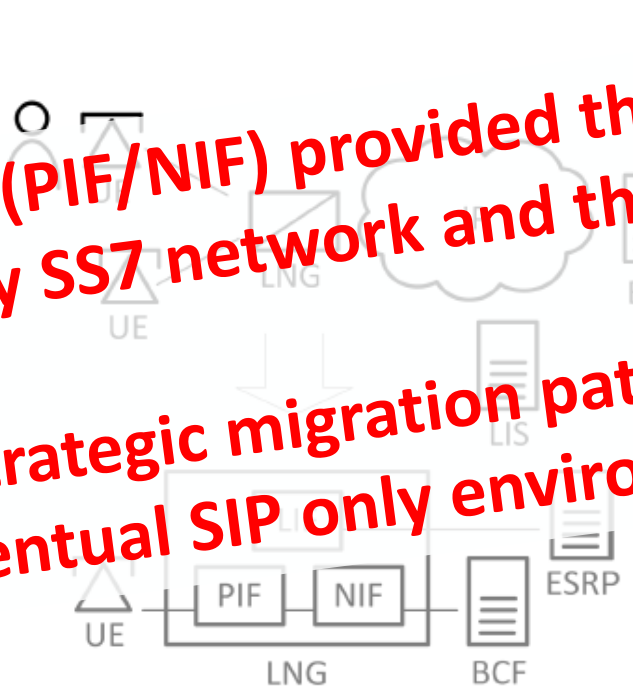
All location boundaries were respected by the ECRFs and routed correctly by the ESRPs to the appropriate PSAPs

IMS 4G

VoLTE emergency-call-ready Sony Z5 with Advanced Mobile Location (AML) Support (Test Application)

Location enriched emergency calls over IMS 4G from the UE (User Equipment) via AML capable LIS to the PSAP (public-safety answering point) using NG112

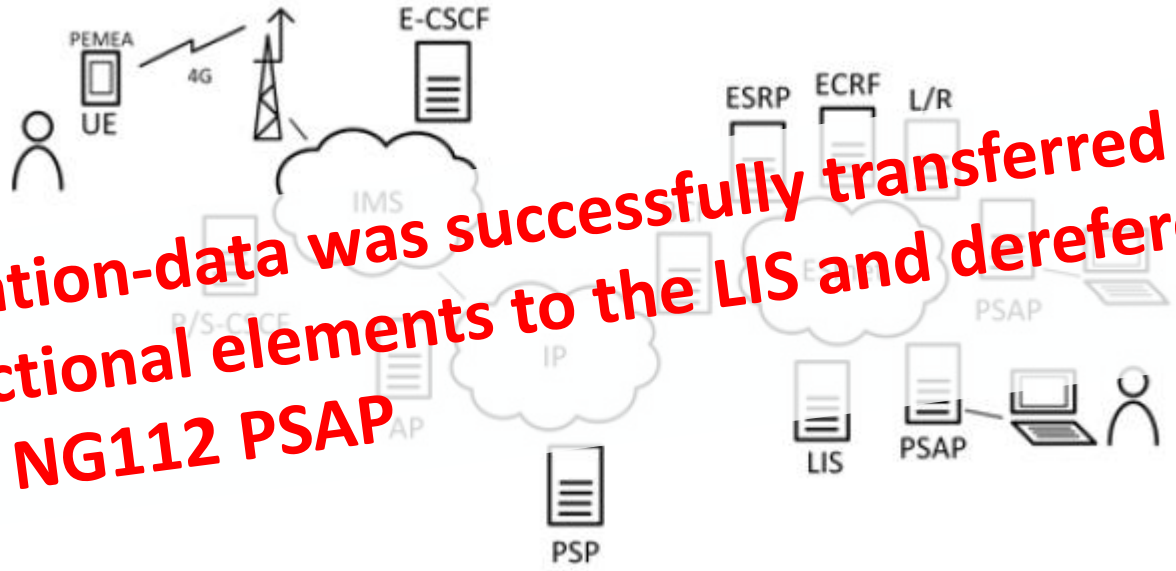
Legacy SS7 and NG112



Gateways (PIF/NIF) provided the required interworking between the legacy SS7 network and the NG112 SIP interconnects

A clear strategic migration path during a project rollout to an eventual SIP only environment

PEMEA



Location-data was successfully transferred via PEMEA functional elements to the LIS and dereferenced by the NG112 PSAP

Border Control Function

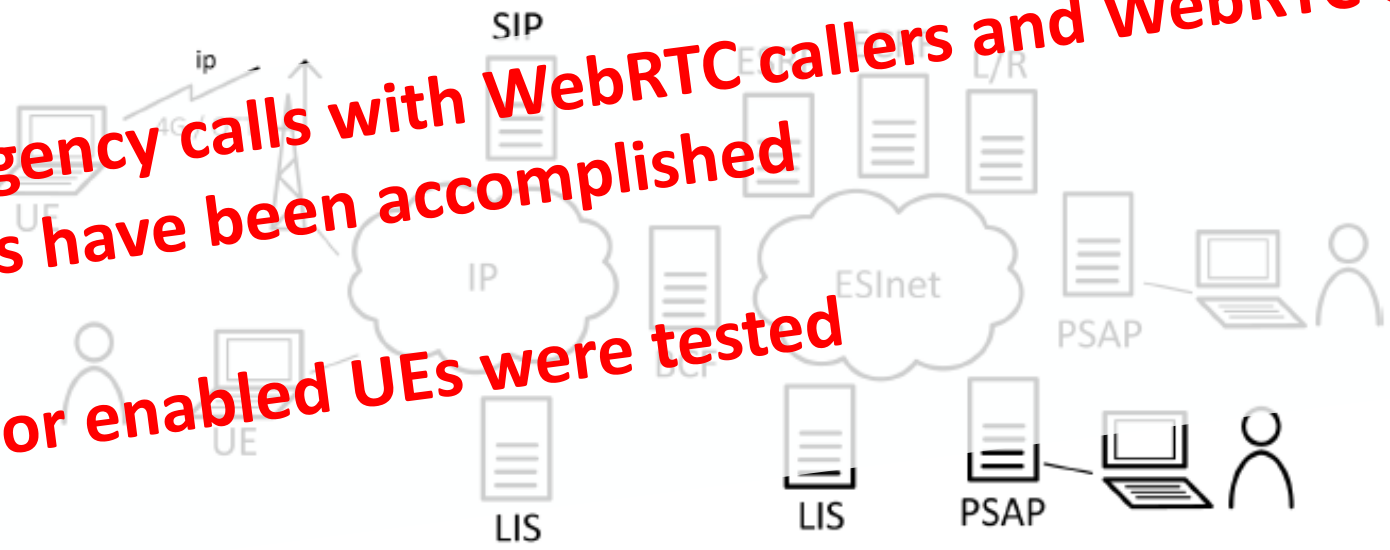
BCF performed successful interoperability with all originating and terminating networks, including audio, video and text calls as well as recording based on SIPREC

- Has both, firewall and session border controller
- Has functions to block specific call sources (suspicious levels)

IOT Aspects

Emergency calls with WebRTC callers and WebRTC call takers have been accomplished

Sensor enabled UEs were tested



Intercontinental test sessions

Internet Access
Two internet accesses (200Mb/s and 100Mb/s)

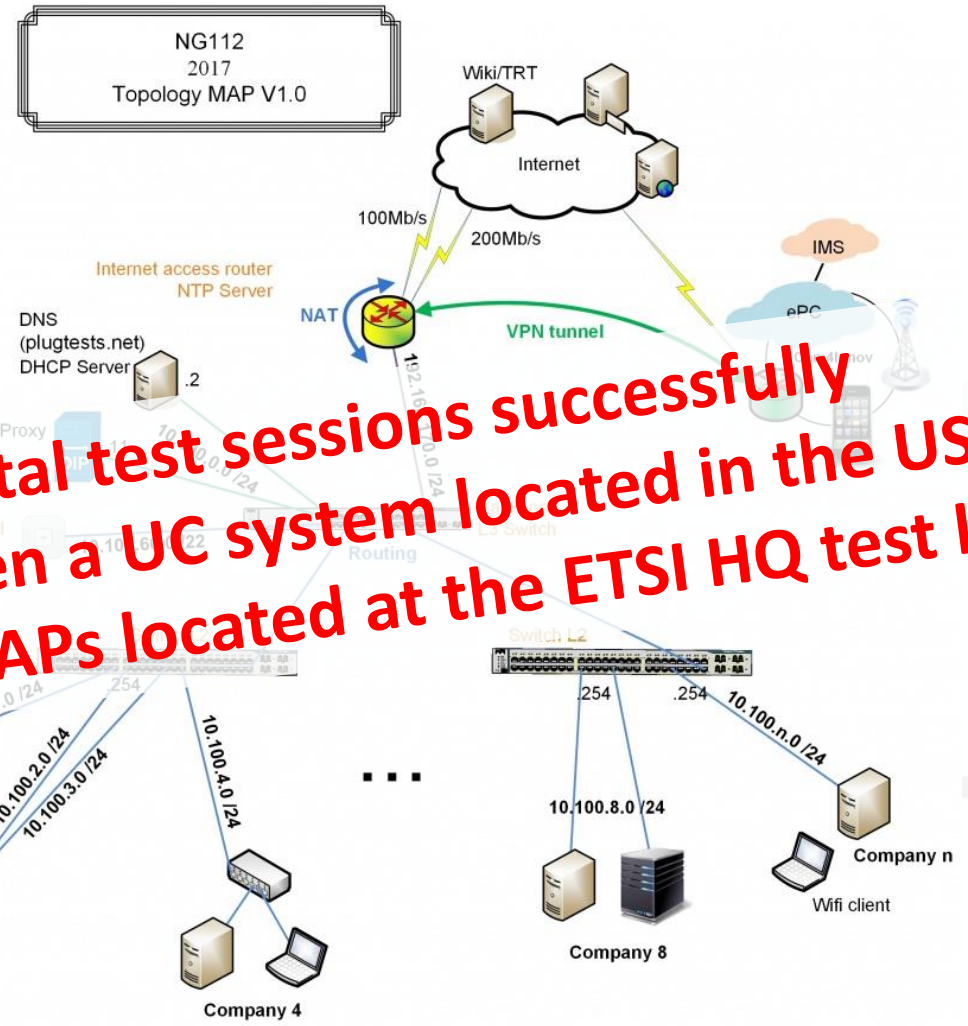
DHCP
DHCP available only via wifi:
IPv4: 10100.60.0 /22
Default Gateway: 10.100.63.254

FIXED IP
One dedicated 10.100.x.0 /24 network per companies.
See wiki for details.

DNS
Domain: plugtests.net
Server: 10.100.0.2

NAT
NAT only for internet access

NTP Server:
Internet access router: 192.168.170.12



First intercontinental test sessions successfully conducted between a UC system located in the US and various NG112 PSAPs located at the ETSI HQ test lab

Conclusions

Conclusions

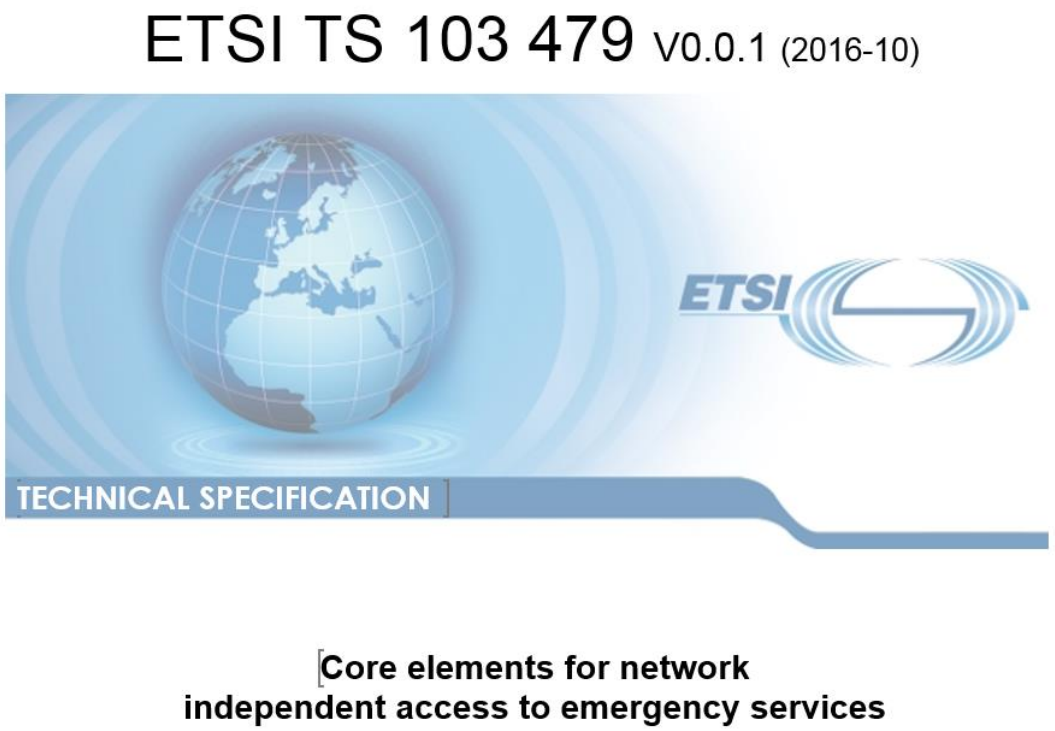
- Stable base specifications
- Location based call routing works well
- The provision of SS7 to NG112 SIP gateways allows for a clear strategic migration path from legacy networks to a SIP only environment
- Future-proof. Continuously integration of new features was demonstrated with the AML, PEMEA and WebRTC integrations
- A large choice available of innovative and standards based products to build next generation emergency communication solutions
  - A large number of vendors provide the various elements of the NG112 equipment chain
  - and those elements interoperate with each other

Update from ETSI SC EMTEL

ETSI SC EMTEL

- Requirements and functional architecture
  - Definition of the functional architecture and assignment of responsibilities to each of the identified entities
  - Definition of the information exchange formats between entities where interoperability between different organizations is required

ETSI SC EMTEL



- EENA published the Next Generation 112 Long Term Definition Document (here) (March 2013)
- Core elements and corresponding technical interfaces for network independent access to emergency services

Border Control Function
Emergency Service Routing Proxy
Emergency Call Routing Function
Public Safety Answering Point
Legacy Network Gateway
Location Information Service

ETSI SC EMTEL

- Test cases and scenarios
  - interoperability testing of the core elements for independent access networks
  - Scenarios cover for instance location based and policy based emergency call routing, network or handset derived caller location (e.g. AML) as well as legacy, IP, enterprise/campus, and IMS based access networks

Next Steps

Next Steps

- Next Plugtest event foreseen for Q4 2018 or Q1 2019 (Date to be confirmed)
- Update test scenarios – add more complex scenarios
- Progress the ETSI documents
- Issue an ETSI whitepaper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TESTS
EVENTS

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