

nicc®

UK Interoperability Standards

Open Forum 2017



8th November 2017



Emergency Location WG



- Focus on securely providing location on 999/112 to
 - allow 999/112 emergency calls to be swiftly connected to correct local emergency authorities and
 - enable (quicker) response for citizens
 - meet regulatory expectations

- Membership covers:-

CPs: EE, O2, Sky, VM, Vodafone, Magrathea and BT

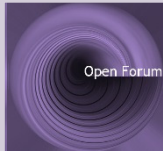
Suppliers: Genband, Huawei, Intel, Metaswitch, Oracle, Unify

Government Agencies: NCSC/CPNI, Ofcom

Other organisations: ITSPA, Imperial College

We'd like more representatives, especially from ISPs and VSPs – please can NICC members help find willing participants!





- **ND1013 Emergency Location Information Interface**
 - defines the interface to be used between mobile network operators and emergency handling authorities within the UK to transport location information associated with 999/112 voice calls.
- **ND1432 SIP-PBX Configurations to Support Emergency Service**
 - identifies configuration options available to the enterprise's Network Maintainer to allow the Emergency Service to operate quickly/reliably in multi-site deployments
 - not all CPs provide the same options : an enterprise and its Private Network Maintainer must work with CPs to determine the most appropriate option for the particular enterprise's desired configuration and for the safety of its employees.
- **ND1638 VOIP - Location for Emergency Calls**
 - specifies a practical solution for identifying the physical locations of VoIP callers to UK emergency services, and for providing sufficient location information to the 999/112 service (basic case only).....now likely to be superseded by ETSI ES 203 178
- **TSG 022 - Routing of Emergency Calls in the UK**
 - describes principles currently used in the UK's SS7 networks that have evolved over the last 30 years to prioritise and protect emergency calls
 - help formulate requirements to enable the support of the service in the networks as SIP elements are introduced





Current Work 1: Delivery of 999 calls in the UK - TSG 023



- Requirements for emergency calls carried over SIP networks
- Uses the principles successfully used in the UK's SS7 networks to prioritise and protect emergency calls (TSG022)
- Sessions initiated by SIP - still primarily voice, though they could include text or video at some point
- Call Servers, SBCs and Firewalls, along with equivalent nodes in IMS networks, all in scope.....
- Stage 1 PSAP planned to be SIP based by end 2019
- First draft currently under review by SIP, SOC and All IP TGs to:-
 - identify mechanisms for all aspects of priority (signalling, media, bearer and access) so they can be applied for use in SIP-based emergency calls
 - include location information in SIP messages from both the originating end user's equipment, and/or inserted by the originating VSP, to be forwarded to the Stage 1 PSAP: location information must not be stripped out in any network nodes
 - clarify the interworking between SIP and SS7 networks



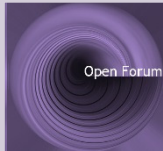


Current Work 2 – locating VoIP callers

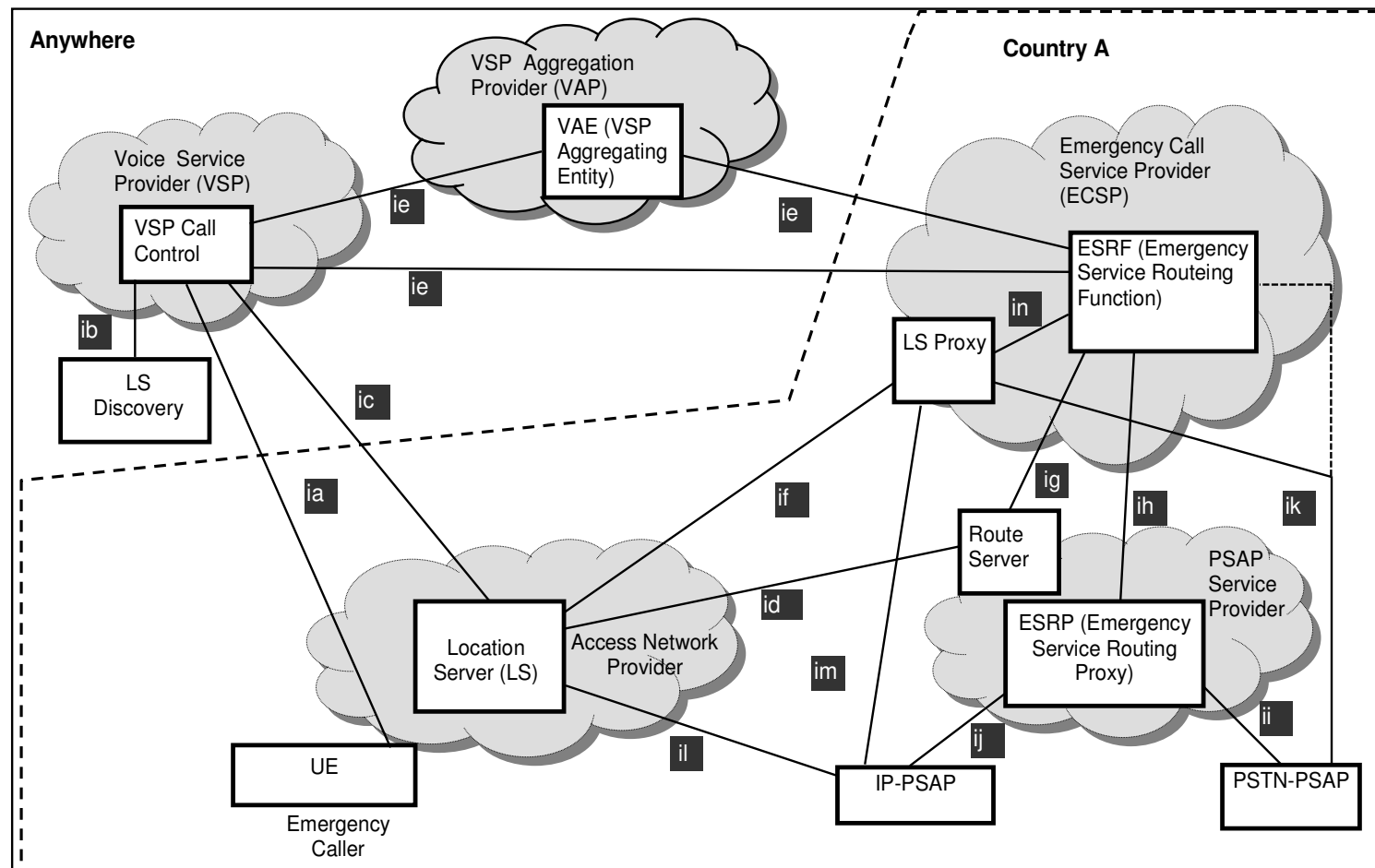


- UK review of ETSI architecture (and protocols) for locating VoIP emergency calls....
....impacts on ISPs, as well as VoIP SPs, transit networks and 999 CHA
- Develop a UK profile of the ETSI standard explaining how architecture and protocols can be implemented
- Apply to specific complex use cases of WiFi access and IP MultimediaSubsystem (IMS) networks





ETSI ES 203 178





Implementing in UK

- ISPs to provide Location Information Server (LIS) that tracks to which geographic access point an IP address is currently allocated
=> new interfaces to LIS for VSPs + for 999 CHA/PSAP
- VSPs to find caller location info, to route call and to provide location(reference) to emergency services : network location + device location *
=> new interfaces for VSP to discover and access appropriate LIS
=> use of SIP location header in messaging
- Vendors/Providers of SBCs are affected (as well as those providing CPs' Call Servers) : to allow IP "Flows" to be tracked across them, and not to remove vital information

*When available





Any questions?

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