

The eCall discriminator flag and ensuring interoperability and roaming across national and international mobile networks – deployment and operational challenges



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About me



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Content

- eCall implementation – are we ready?
- Interoperability and policy issues - Numbering, Roaming, National Roaming
- Standardization and IVS usage of mobile technology - 2G/3G/4G
- Private Third Party in Car Solutions – experience and an opportunity?

eCall implementation - *Are we ready?*



- National readiness on PSAPs 1 October 2017
 - eCall PSAP structure and routing table still needs to be defined in some countries
- Mobile operators
 - eCall flag implemented or ready to be switched on
 - Routing plans needs to be implemented
- Manufacturers
 - 2G and 3G standards developed and IVS eq. - should be ok
 - Providers of PSAP call handling systems – should be ok
- Automotive sector
 - Ready but could be cost issue on both 2G and 3G equipment
 - Future proof? - 4G now being included in own solutions

Interoperability and policy issues -



- Scarcity in number resources seems to be less of an issue in most countries – many NRAs have adopted dedicated M2M (and MBB) number series
 - M2M operators have deployed extra-territorial use of national E.164 and E.212 numbers:
 - Question on permissibility for extra-territorial usage – recommended only to be permitted in exceptional cases defined by an ECC Decision. Possible candidates are some nomadic voice services and some M2M services
 - Usage of global resources - a hurdle incurring cost of new roaming agreements, implementation and testing – but on longer term?
 - BEREC not in favour of a recent EC suggestion on usage of European numbering scheme for M2M
- Successful launch of eCall requires usage of national E.164 and E.212 numbers

Interoperability and policy issues -



- Extra-territorial usage of national numbers – have been a smooth way to secure international roaming for M2M solutions
 - But questions have been raised:
 - Whether solutions are under the scope of the Roaming III Regulation
 - Ok for periodic usage
 - Whether roaming regulation applies for permanent roaming
 - Not in general – but subject to case by case evaluations
 - Commercial agreements is encouraged
 - Some MNOs have included clauses to discourage permanent roaming but seems more to be monitoring the development and not applying specific tariffs at the moment
- eCall should in its nature and due to limited usage be deemed under the scope of the Roaming III Regulation

Interoperability and policy issues -

National roaming?

- National roaming today not very common – but in some countries used to support a new MNO during network buildout
- National Roaming for eCall would increase security of getting connected when in distress
- Usage of non-European SIMs would give the same result – but resulting in European MNOs becoming uncompetitive on own continent
- But how distinguish eCall from other M2M solutions?

Priority Subscription Solution - Norway

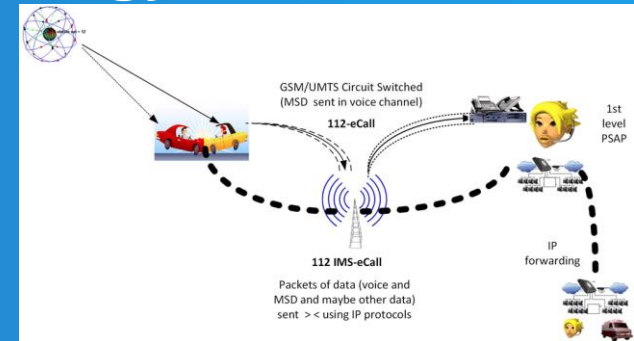
– possible to adopt to eCall?



- For a very limited number of users within special public service functions - police, fire, health, defense, civil emergency etc.
 - A subscriber with priority will have more security if a mobile network experience congestion or basestations is out of order
 - The subscriber will have access to national roaming when outside coverage of home network or basestations of home network is out of order
 - The technical solution is based on MNOs/MVNOs opening a specific sub range of IMSI series for National Roaming
- NRAs to encourage MNOs/MVNOs to adopt a specific IMSI series for eCall to allow for National Roaming?

Standardization and IVS mobile technology

- We will experience switch off of 3G in 3-5 years
 - We will experience switch off of 2G in under 10 years
 - Telstra and AT&T already switched off
 - 3GPP standardization of 4G IMS solution is progressing but probably completed too late for the launch of eCall
 - Stage 3 ready March
 - Could be ready for Rel. 14 end year
- Installing only 2G or 2G/3G IVS is not future proof – 4G needs to be included and support for a broad range of frequencies



Telenor Experience with TPSP eCall (3rd party service provider so called “private” ecall)



- Telenor Connexion supports Volvo On Call services more than a decade.
- eCall solution is a “private” company eco-system, roll-outs are well coordinated and have happened on a country-per-country approach after thoroughly testing incl. PSAP chain. – No major issues have detected to support this from network but truly confirm people have been saved.
- Strict eCall solution and technical restriction on standard so far – concern factor for Automotive OEMs to rollout solutions with a life time of 15+ years with regards to benefits, cost efficiency and support.

Private Third Party in Car Solutions - an opportunity?

Could APPs be developed for eCall so already installed in car solutions could communicate directly with PSAPs?

eCall - Emergency Call on Samsung Gear



Summary

- Successful launch of eCall requires usage of national E.164 and E.212 numbers
- eCall should in its nature and due to limited usage be deemed under the scope of the Roaming III Regulation
- NRAs encourage MNOs/MVNOs to adopt a specific IMSI series for eCall to allow for National Roaming?
- Installing only 2G or 2G/3G IVS is not future proof – 4G needs to be included
 - and support for a broad range of frequencies
- Private Third Party In Car Solutions – an eCall app. opportunity?

→ Are we ready – yes largely but with some limitations





Thank you



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