

















# **Recommendations on residual** issues relevant to eCall

Robert MacDougall – Vodafone Group Public Policy ECC Public Workshop on numbering for eCall

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## Vodafone Connected car services today



- Global M2M connectivity, GDSP platform, eCall
- Internet In The Car (IITC) to a WiFi hotspot

- Vodafone Automotive provides E2E services including telematics, end user applications, devices
- Stolen Vehicle Tracking (SVT), Usage based Insurance (UBI) and Fleet Management

# Our vision: connected, automated, shared

The digital future of transportation will transform the way we live and work

### Connected

Vehicles communicate with each other, and with other elements of the transportation infrastructure system

# Automated

Vehicles become increasingly automated – from today's lane assistance and automatic parking systems, to tomorrows fully autonomous vehicles

### Used and Shared

Vehicles are used on demand and insured accordingly. Behaviour models change



Based on Cellular V2X and its evolution to 5G

# M2M/IoT Numbering – Summary of Vodafone Group's strategy

- Use of supranational resources allocated to Vodafone by the ITU (+ 90128 E.212 number and + 88239 E.164 number) or specifically configured +20404 E.212 number and +88239 E.164 number.
- This strategy does not deplete national numbering E.164 resources and provides transparency of E.164 use for M2M/IoT.
- We have maintained a dialogue with the ITU as customer requirements have evolved:
  - 2009 : Vodafone Group presents solution to ITU, proposing a centralised closed M2M platform for data traffic, using a global addressing strategy for both E.212 and E.164 supranational shared resources, specifically configured to our M2M platform.
  - 2011 : Vodafone granted use of the E.164 shared resource +882-39 for the purposes of closed M2M voice (e.g. emergency calling in a lift).
  - 2012 : ITU grants inclusion of a voice component of in the M2M service in the original assignment for eCall (calls either to/from the car original equipment manufacturer call centre or to the Public Safety Answering Point for eCall). 'Private eCall' in place already for many OEMs. This number range must be opened across all in-country PSTNs used by the PSAPs.
  - 2015 : ITU grants extended use of shared resources to allow for the connection of Wi-Fi enabled end-user devices for automotive Internet services.

## Overview of our current emergency calling support to OEMs





We need to provide the facility for the PSAP to call back to the car (MT)

## Recap on eCall obligations



Despite the overall complexity, three stakeholder groups have a legal obligation to support the deployment of eCall:

Who	Objective	Legislation title	Implementation deadline	Key requirements		
Member States	Enable the reception of eCalls by the Public Safety Answering Points (PSAPs)	DECISION No 585/2014/EU of the European Parliament and of the Council on the deployment of the interoperable EU-wide eCall service (OJ L 164, 3.6.2014 p.6-9) – LINK	1 <sup>st</sup> October 2017	<ul> <li>Free of charge to end users</li> <li>Emphasis on personal data protection</li> <li>Fully deployed across each nation (subject to network coverage)</li> <li>Emphasis on public awareness</li> </ul>		
OEMs	Equip new type-approved models with an embedded eCall device	REGULATION (EU) 2015/758 of the European Parliament and of the Council of 29 April 2015 concerning type-approval requirements for the deployment of the eCall in-vehicle system based on the 112 service and amending Directive 2007/46/EC (OJ L 123, 19.5.2015, p. 77–89) - LINK	31 <sup>st</sup> March 2018	<ul> <li>Device to be permanently installed</li> <li>Automatic and manual triggering</li> <li>Compatible with Galileo and EGNOS positioning systems</li> <li>Optional support for private (TPS) eCall</li> </ul>		
MNOs	Enable the transmission of eCalls from the car to the PSAP	COMMISSION RECOMMENDATION of 8 September 2011 on support for an EU-wide eCall service in electronic communication networks for the transmission of in-vehicle emergency calls based on 112 ('eCalls') (OJ L 303, 22.11.2011, p. 46–48) – LINK (The Recommendation states a deadline of 31st December 2014, but this was extended to 31st March 2016 in the Regulation referenced above.)	31 <sup>st</sup> March 2016	<ul> <li>Recognise eCalls through the presence of the eCall discriminator (flag)</li> <li>Route eCalls to the appropriate PSAP through routing tables supplied by the Member State</li> </ul>		

#### All of Vodafone's 12 EU mobile networks are 'eCall ready'





# Member States – best practice learnings from the eCall study

 The eCall report that SBD undertook for Vodafone in 2016<sup>1</sup> identified best practice examples from early adopter Member States that provide tangible examples to help accelerate deployment of eCall in those Member States still developing their implementation plans in order to achieve the PSAP readiness deadline of October 2017:



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1 -Achieving a Digital Single Market for Connected Cars eCall – implementation status, learnings and policy recommendations at <a href="https://www.vodafone.com/content/dam/vodafone-images/public-policy/policy-papers-and-news/ecall-report-final.pdf">https://www.vodafone-com/content/dam/vodafone-images/public-policy/policy-papers-and-news/ecall-report-final.pdf</a>

# Member State policy recommendations



- The eCall report also identified two critical areas for Member States if they are <u>all</u> to meet their deadline of being eCall-ready by October 2017:
  - Member States that do not currently have a *deployment plan for eCall* should urgently develop such a plan. The end-to-end deployment process typically requires 18-24 months of dedicated activity.
  - Member States should provide their *eCall routing tables* to network operators to ensure that the networks are tested in time. At the time of the report there was no specific deadline for this task.
- The report also recommend that Member States should :
  - Appoint an 'eCall champion' at the national level to be the focal point for all activities across stakeholders
  - Ensure a primary role in the deployment of eCall for the relevant Ministry for PSAPs, as opposed to delegating eCall only to the Ministry of Transport
  - Launch a stakeholder awareness campaign to explain that eCall legislation <u>does not</u> need to be transposed into national legislation (this was reported as a barrier by a number of respondents during the research for the report)

### **Recommendations on residual issues**



Twelve suggestions were made in the eCall report to address open issues that are often raised in relation to eCall.

Issue	Recommendation	EC	Member State	ΜΝΟ	OEM	Others
End of vehicle life	Strong action required by the EC to determine an appropriate solution ASAP	✓				
Periodic technical inspection	Strong action required by the EC to define open areas ASAP	~				
SIM update procedure	A standardised process is required to ensure compatibility across all TCUs and MNOs	✓		$\checkmark$	✓	TCU supplier
Open-access platform	Action required by the EC to ensure that the business planners from OEMs and other stakeholders are involved in the discussions, and not just the R&D engineers	$\checkmark$				
False eCalls	Member States must ensure that they have included a dedicated process for managing false eCalls in their PSAP architecture, together with a national awareness campaign		√			
2G switch-off & eCall over 4G	OEMs are recommended to equip their vehicles with a 2G/3G TCU whilst PSAPs should include eCall-over-LTE in their plans for receiving emergency calls via IP networks		$\checkmark$		$\checkmark$	
Testing 'real' eCall	PSAPs should conduct end-to-end testing with their MNOs using 112, the eCall flag, commercial equipment etc.		$\checkmark$	√		ETSI
National number exhaustion	Use of ITU supranational numbers should be an effective solution			$\checkmark$		
Caller Line ID	The use of extraterritorial E.212 numbering fosters the presence of CLI for PSAP call-back to the vehicle			~		
eUICC subscription update procedure	A standardised process is required to ensure compatibility across all TCUs, MNOs and Subscription Managers			√		Subscription Managers, TCUs
Testing the inactive TCU state	Testing is required for the TCU to confirm the first-ever implementations of an inactive state				✓	TCU supplier
Operating costs	National Regulatory Authorities should review the per call costs charged to MNOs to ensure appropriate ex-ante regulation is in place					NRAs

