



Experimentation of emergency call in the GST test sites

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The GST project



- European R&D project, FP6
- Objective: create an open and standard architecture for end-to-end telematics
- 50 partners involved: car makers, telecom operators, equipment suppliers, service providers, insurance and assistance companies, research labs
- 7 test sites: Aachen/Russelsheim, Gothenburg, London, Munich, Paris, Stuttgart, Torino
- Roadmap:

kick-off	March 2004
use cases and system requirements	2004
architecture and specifications	2005
implementation and field tests	2006
validation and dissemination	2006/2007
- 7 R&D subprojects in GST for technologies and services

 **RESCUE** subproject: emergency call service

The Rescue subproject (1/2)



■ Objectives:

- provide faster and more effective response to the emergency call
- realize an experimentation in 2006 in the GST test sites
- provide inputs for standardization

■ GST context:

- one IVS in each vehicle: “GST compliant” TCU including a SIM
- end user supposed to have subscription(s) to service provider(s) of GST compliant services
- creation of “new business opportunities” => existence of sustainable business models, enabling commercial services for the service providers

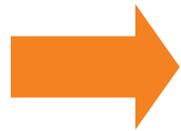
The Rescue subproject (2/2)



■ Experimentation:

- **Orange** and France Telecom involved in the chain: IVS => PSAP
- implementation of a first mock-up by France Telecom in 2005
- experimentation made in 5 GST test sites:
 - Aachen
 - Gothenburg
 - London
 - Munich
 - Torino

The Rescue mock-up: specifications for emergency call



- transfer data from IVS to the PSAP
- fast and effective response time
- experimentation in several European test sites

Supplementary specifications:

- operates with standard GSM equipments and standard telecom protocols (proprietary candidates out of the scope)
- simple and standard interfaces: to the vehicle and to the PSAP
- open to future evolutions of the transmitted data (size, content)
- identification of the caller (authentication purpose, junk calls ...)
- protocols: independence between application & transport layers (state of the art)

The Rescue mock-up: interfaces



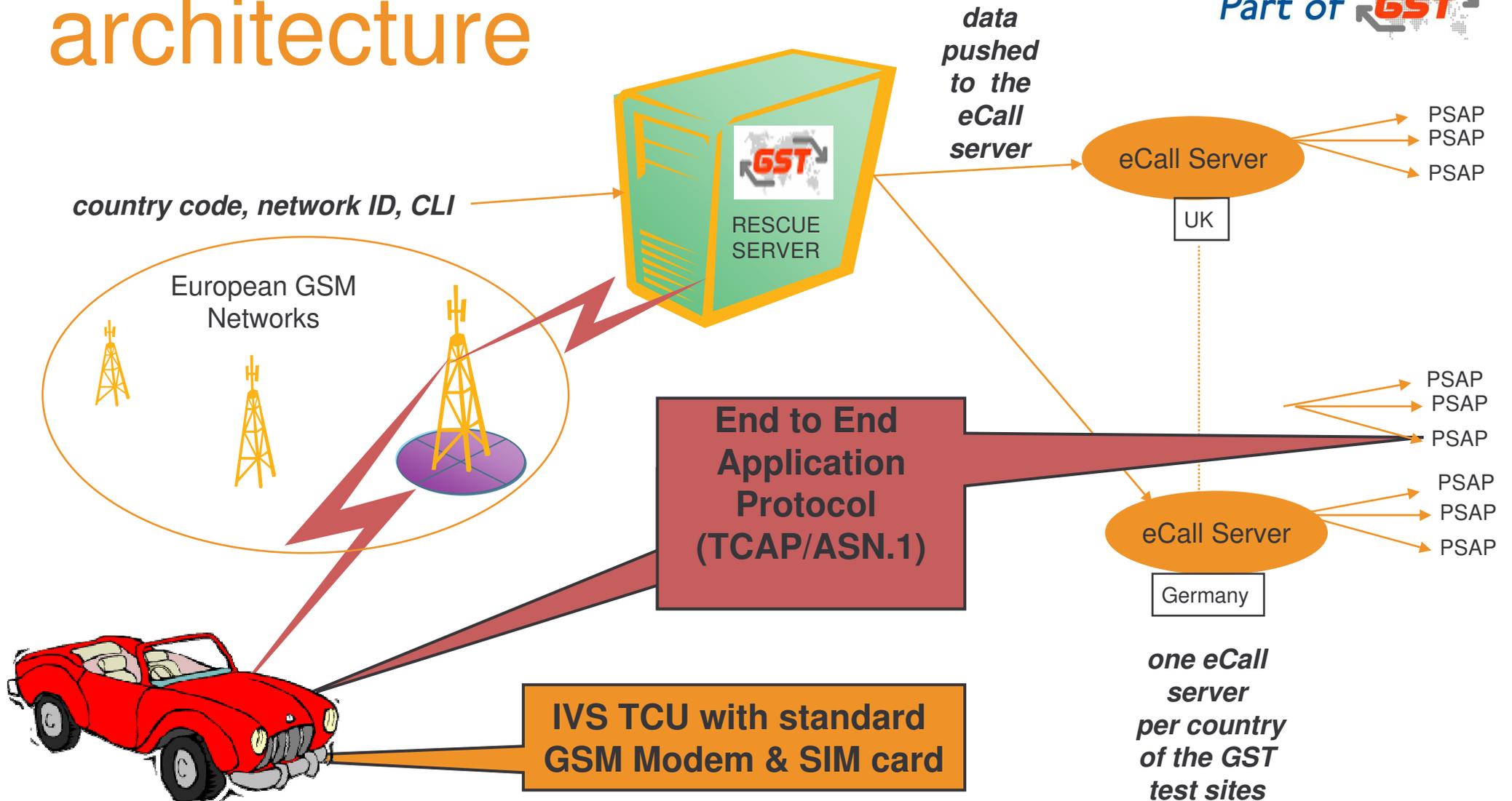
- “simple” interface to the vehicle:
 - standard GSM equipment including a SIM card
 - data to be transferred: binary in text encoding format
 - benchmark results for application/payload layer:
TCAP/ASN.1 has been selected
- “simple” interface to the PSAP:
 - benchmark results for transport layer: TCP/IP
 - benchmark results for application/payload layer:
TCAP/ASN.1 over SOAP/HTTPS has been selected

The Rescue mock-up: routing issues



- specification
 - initiate end-to-end dialogue between the vehicle and the right PSAP of the visited country
- experimentation context
 - dialogue routed via the Orange home network
 - country code, network ID, CLI provided by the network
- architecture based on two levels of service providing:
 - one RESCUE server in the Orange network
 - one eCall server per country of the GST tests sites, in charge of routing the data to the right PSAP

The Rescue mock-up: architecture



The Rescue mock-up: characteristics



The RESCUE mock-up complies with the specification of emergency call in the GST context:

- improving response time and security of transmission
- experimentation in 2006 at the European level
- operating with standard GSM equipments and protocols
- simple and standard interfaces: to the vehicle and to the PSAP
- open to future evolutions of the transmitted data (size, content)

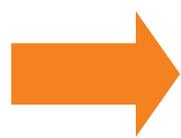
Moreover, it opens the door to:

- creation of “new business opportunities” for providers of added value assistance services, ...
- possible development of “filtering” functions to limit junk calls, ...

The Rescue mock-up: limits



Due to its specification, the RESCUE solution has some limits.



It is not designed for covering all use cases inside the scope of the “public” eCall service, i.e.:

- public service for all European vehicles
- vehicles without “GST” TCU or without TCU at all
- without subscription by the end user to telematics service
- without sustainable guaranteed business model for service providers
- ...



which makes a quite different specification !

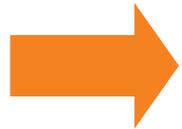
RESCUE provide inputs, but research of a solution for all use cases of “public” eCall is out of the scope of RESCUE

Conclusion and next step



Deployment of a “public” eCall service for all European vehicles requires:

- consensus from European telecom operators
- definition by European telecom operators of a “preferred solution”



To achieve optimal outcome, standardization requires to start from the “preferred solution” of European telecom operators



thank you for your attention

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