

Minutes of the Meeting

Fifth Meeting of the eSafety Communications Working Group, Berlin 18-January-07

Version 1.0, as of 21 Feb 2007, all feedback from participants included

Participants:

Uwe Daniel, Silicon Networks
Knut Evensen, Q-Free
Heinz Friedrichs, Bosch
Björn Hedlund, CLEPA
Juhani Jääskeläinen, DG INFSO
Alexander Kühn, BMWi
Holger Kunert, Bundesnetzagentur
Andreas Lübke, Volkswagen
Peter Mann, Bundesnetzagentur
Wolfgang Reinhardt, ACEA
Andreas P. Schalk, EFKON
Dieter Seeberger, DaimlerChrysler

1. Welcome and introduction

Heinz Friedrichs as host and Uwe Daniel as chair welcomed the participants. Uwe Daniel presented the agenda for the day (revised as both TF leaders were not present):

- 10.00-11.00 welcome, report on new developments since last meeting (U. Daniel)
(ITS Congress London, Int'l Cooperation WG meeting, SG meetings, new WGs)
- 11.00-11.30 report on architecture WG and activities within eSafety (J. Jääskeläinen)
- 11.30-12.00 status report standardisation (K. Evensen)
- 12.00-13.00 lunch break
- 13.00-13.15 status report spectrum/regulatory issues (H. Kunert, D. Seeberger)
- 13.45-16.15 work on draft recommendations
- 16.15-16.45 work plan outline for the WG and the TFs towards the final report
- 16.45-17.00 AOB, adjourn

2. Last meetings minutes and documents were discussed and agreed on. The dates for the next meetings were revised to avoid collisions with other events. See paragraph 9.

3. Uwe Daniel gave a short update on current activities (new WGs, meetings).

4. Juhani Jääskeläinen gave a presentation on the current activities regarding **architecture**. The slides can be found on the WG web space. A workshop was held on Nov 27th, 2006 in Brussels by COMeSafety. Progress was made towards a common understanding between the FP6 projects,

CALM, FRAME and other activities. Nevertheless it is still unclear whether a common architecture to fit all needs will be possible. The question arose whether CALM and C2C-CC can be made fully compliant to each other. Basically a CALM M5 box and a WAVE box will be very much the same with some differences in middleware. CALM defines an umbrella whereas C2C-CC focuses on short range communication and geo-referencing. To discuss these issues further and to specify a baseline architecture specification a task force will be created. COMeSafety, Timo Kosch will coordinate. Additional material will be placed on our WG web space as well; Uwe Daniel will ask Timo Kosch to provide the documents. From CVIS Knut Evensen gave an update on the projects' architecture view and a comparison of worldwide architecture approaches. The separation in a high level, a service and a communication architecture was explained. These slides will be made available as well.

5. Knut also gave an update on **standardisation** (slides on WG web space). WAVE (IEEE802.11p) is now in letter ballot processing after the online procedure did not lead to consensus. An approved standard may be expected in Q3/Q4 2007. Worldwide growing interest in mobile systems can be noticed. I.e. a tutorial on CALM and CVIS in Dallas, TX in November showed tremendous interest and participation. Knut highlighted the importance of European stakeholders showing involvement so that influence on standards etc. is well distributed between EU, US and JP.

Regarding integration of nomadic devices ISO TC204 WG17 takes an active role. Data content, safety and privacy are the main topics. Worldwide discussion is ongoing. Prof. Kawashima who plays a central role in JP joined a HUMANIST SB meeting and is highly interested to be involved in WG17 work as well as to get in contact with people from ERTICO and the Nomadic Device Forum. Knut will send him the details of Wolfgang Reinhardt and Paul Kompfner.

From April 23rd to 27th there will be a plenary meeting in Lexington, US which may have an important influence on ESoP and safety information topics. For the EU to keep pace there is an urgent need to allocate the spectrum to be able to begin with field trials. An EC decision can be expected at the end of the current process and the availability of CEPT results from the mandate. After that a period of 0.5 – 2 years will be allowed for MS to adopt, depending on the decision.

Side info: There are rumours that Microsoft, TomTom and Intel are planning a partnership to establish a de facto standard for an interface for nomadic devices in cars.

6. Dieter Seeberger and Holger Kunert updated the group on the **spectrum** discussion and proceedings. Based on input from the SSA project COMeSafety, which was approved by ETSI, the WG SE (SE41) evaluated the bandwidth justification for safety applications particularly with regard to spectrum efficiency. The evaluation confirms a bandwidth between 30 and 50 MHz as reasonable for all safety and traffic efficiency applications and 20 MHz of this spectrum would be needed to ensure critical road safety applications. These results will be provided to the next WG FM meeting (23–26 January, Doc. FM(07)012).

Additional note: on 07-Feb-07 the following information from Sören Hess on the results of the mentioned presentation arrived:

“Both documents [ECC report 101 on compatibility of ITS apps in the 5.9 GHz range and SE41 document on spectrum justification] were adopted at the Spectrum Engineering working group of the CEPT this week.

As you will see the compatibility studies are positive as far as the critical road safety requirements are concerned. In total 30 MHz of spectrum between 5875-5905 MHz is compatible with other services. The top 20 MHz are restricted with limitation of -65 dBm for out of band and the 20 MHz for non safety purposes 5855-5875 MHz have a similar limitation of -55 dBm.

I am sure we will be able to live with this situation.

The spectrum requirement calculations were pretty positive and it is stated that 30-50 MHz are necessary for road safety applications including critical road safety (5875-5895 MHz).

The way forward now is discussions about the regulatory documents (ECC Decision and EC Decision) and also the report in response of the EC Mandate on ITS.

We are providing proposals for that in the Frequency Management working group of the CEPT and expect to have a final decision end 2007 beginning 2008.”

The current documents can be found on www.ero.dk, following ECC activities -> WG FM -> 2007 -> Helsinki Jan -> input documents.

Remark: The ITS spectrum request provided by ETSI includes 20MHz for non-safety related ITS applications as well, which had been not considered in the evaluation of the bandwidth justification. As the anticipated applications in this range are not safety related, the eSafety Forum WG-C will only deal with those as an information item.

At the last meeting of the SRD/MG (7-8 November 2006) a discussion started whether the ITS system should be considered as Short Range Devices, which are listed in the ECC/REC 70-03, or whether it should be considered under the existing general allocation MOBILE SERVICE on a primary basis. The Mobile Service is defined in the Radio Regulation (RR1.24) as a radio communication service between mobile and land stations or between mobile stations. The ITS industry prefers the status of a MOBILE SERVICE because Short Range Devices are operated on a non-interference and non-protection basis.

In its last meeting SRD/MG started to work on the interim report for the EC mandate requesting the CEPT to study harmonised radio spectrum use for safety critical applications of ITS in the European Union. This report includes the results of the compatibility study and bandwidth justification, which was done for the 5.9 GHz ITS spectrum request. Besides 5.9 GHz the report considers also the spectrum 63 - 64 GHz. Due to the different propagation properties in both frequency ranges the focus of applications is different and both spectrum requests are considered to be complementary. During a drafting group meeting in London on January, 15th 2007 for finalizing the draft interim report for the WG FM it became obvious that further coordination between the two groups favouring the different frequency ranges is required.

Among the frequency administrations Ofcom from UK is favouring the spectrum at 63GHz instead of 5.9GHz for ITS applications. Most of the ITS industry, e.g. the C2C-CC and all the partners in the related projects funded by the EC in the FP6, is supporting the 5.9 GHz spectrum request.

Nevertheless there was widespread consensus to classify ITS systems as a MOBILE SERVICE instead of DSRC in the SRD/MG.

Information on the position of the new MS is currently not available. It would be much appreciated to have higher involvement of the MS in all eSafety activities. The eSafety SB plans a concerted action for higher involvement. More information on that is expected from the next SB meeting in March. The term "safety of life" was discussed. The ITS activities in the US use it consequently now, in the EU the position is more ambivalent. Some parties would like to restrict this term to air and sea traffic as there is often an instant hazardous situation if normal operation of aircraft or ship fails (falling down or sinking), but not in surface traffic (just a standstill, although it might be in a highly dangerous spot). The WG will continue to observe the discussion on this topic.

Björn Hedlund mentioned that CLEPA did revive two expert groups who will work on electronics and safety/traffic related issues.

7. The work on a first draft of recommendations was very successful. Consensus was reached, the draft recommendations (see end of paragraph) can be presented to a broader audience for discussion on the next eSafety plenary meeting. Two items are open to be included: a reference to a needed ITS architecture and the integration of nomadic devices. Open points are also the integration of references to the business case discussion and to ESoP and RESPONSE code of conduct in the body of the recommendations (...whereas... part).

Current set of recommendations as agreed on in the meeting (wording can be revised):

To increase road safety in Europe the European Commission should consider supporting the member states and the industry to establish a system comprising the following aspects

- an allocation of protected spectrum in the range of 5.875GHz to 5.925GHz including 20MHz for safety critical messages (as defined in ...) for safety and efficiency related messages (described in 3.x) between vehicles, other vehicles and/or infrastructure units so that communication can be maintained without delay or interference
- each OBU or infrastructure device offering safety and efficiency applications must perform within a minimum set of mandatory parameters so that communication can be maintained without delay or interference
- an EU wide harmonised deployment plan, including infrastructure and vehicle systems, to ensure market development by providing certainty for investment through a sustainable and feasible business model
- a standardised interface is recommended to allow future functions or commercial applications offering additional revenue streams to leverage system investments
- a legal framework for seamless exchange of traffic relevant data between MS in an unified way in line with privacy and data protection regulations
- a recommendation to the MS to provide public traffic data in a standard format free of charge to road users (see also the recommendations of the RTTI WG)

8. The next meeting will focus on the list of applications we started in the 4th meeting of the WG. For preparation Uwe Daniel will collect all function/application lists from CVIS, COOPERS, Safespot etc.

9. Next meeting dates 2007:

Apr 17 (EFKON, Vienna)

Jun 21 (Q-Free, Norway)

Sep 05 (CLEPA, Brussels)

10. AOB

a) Heinz Friedrichs, Chairman of the RTTI WG asked for a close cooperation between the two WGs as communication on RTTI via broadcast and V2X communication will ideally complement each other.

The two chairs agreed to exchange information more frequently. During the preparation of the "Fachkonferenz eSafety" held by the German Ministry of Transport in June a frequent communication is required anyway as both topics will be presented in the same session. Risto Kulmala and Sören Hess are the two of five planned speakers who will be able to address both issues. Fritz Bolte (BAST, Germany and member of the RTTI WG) is the coordinator of this session.

b) The next meeting of the International Cooperation WG is planned the day after the ITS World Congress in Beijing on October 12th, 2007.

c) DG TREN runs a project on an universal OBU system which is very much infrastructure related, but should be monitored by our team.

d) The participation of road operators in the WG would be appreciated. Andreas Schalk will contact Autostrada or Asfinag from within the COOPERS project and ask for participation.