EUROPEAN COMMISSION
Information Society and Media Directorate-General

Components and Systems
ICT for Transport

5TH PSAP EXPERT GROUP MEETING

Subject: **Candidate transmission technologies (*Point 5.2 of the Agenda*)**

Dear Sir,

As a promoter of one of the candidate technologies for the transmission of the eCall Minimum Set of Data which passed successfully the first performance tests of the independent test laboratory, we would like to invite you to present your technology at the next meeting of the PSAPs expert group. This meeting will take place in Brussels on 9th October 2008.

Please note that we have also invited the chair of the 3GPP SA4 to present the selection procedure and the test results in this meeting.

Besides the analysis of the technical performance of the candidate technologies, it is important that the eCall stakeholders get information on the potential implementation of the candidate technologies.

Therefore, we would appreciate if you could explain in the meeting what would be the impact that your technology would have for both the PSAPs and automobile side, in terms of equipment/software, how the equipment is integrated with PSAP systems and in the in-vehicle devices, and what would be your licence policy towards the PSAPs and the automobile manufacturers.

In particular, you should provide a detailed and precise answer to the following questions:

Questions:

(1) What is the projected cost of implementing your technological solution for the transmission of the eCall MSD to the PSAP? (i.e., equipment needed –HW, SW, maintenance approach, etc.)

RIM's eCall solution can be implemented in the PSAP to be approximately 3x the complexity of CTM on average over the 26 channel error conditions tested in the 3GPP eCall competition (some of them very harsh with approximately 8% frame erasures). In addition, CTM itself is low complexity (about 1/5 the complexity of the AMR speech codec).

Commission européenne, B-1049 Bruxelles / Europese Commissie, B-1049 Brussel - Belgium. Telephone: (32-2) 299 11 11.
Office: BU31 5/18. Telephone: direct line (32-2) 2962188. Fax: (32-2) 2969548.

E-mail: Emilio.Davila-Gonzalez@ec.europa.eu

Although the algorithm adapts quickly to varying channel conditions, the basic receiver structure remains the same, resulting in a flexible design with fairly low complexity.

This is obviously much less than the 20x complexity limitation recommended by 3GPP.

(2) What would be the time-frame when your technology would be ready to be tested and deployed for the PSAPs, if selected?

RIM's eCall solution is ready for testing and deployment now. It has already been tested in the 3GPP SA4 eCall candidate competition.

(3) What would happen to those PSAPs not upgraded in case they will receive an eCall with the MSD being sent with your technology (i.e., risk of blocking the call, incompatibility, PSAP operator listening a beep during X seconds.)

After an eCall is established, the PSAP eCall module sends a "trigger" to the IVS module that is basically the signal for the IVS to begin transmitting the MSD. If the PSAP is not upgraded for eCall, then the "trigger" is not sent and the call is connected via voice only, so that there is no difference from current behaviour. There is no incompatibility with existing equipment.

(4) What would be the cost of implementing your technological solution for the transmission of the eCall MSD to the in-vehicle system (IVS)? (i.e., equipment needed –HW, SW, maintenance approach, etc.) Will be there any particular constraint regarding HW?

RIM's algorithm is fairly symmetric between the IVS and PSAP, so some of the following is repetition of the response to question 1.

RIM's eCall solution can be implemented in the IVS to be approximately 3x the complexity of CTM on average over the 26 channel error conditions tested in the 3GPP eCall competition (some of them very harsh with approximately 8% frame erasures). In addition, CTM itself is low complexity (about 1/5 the complexity of the AMR speech codec).

Although the algorithm adapts quickly to varying channel conditions, the basic receiver structure remains the same, resulting in a flexible design with fairly low complexity.This is obviously much less than the 10x complexity limitation recommended by 3GPP.

So RIM's IVS eCall module can be easily implemented on commonly used processors such as, for example, ARM9, ARM11, XScale, MSA, StarCore, etc.

(5) What would be the time-frame when your technology would be ready to be tested and deployed within the vehicles if selected?

RIM's eCall solution is ready for testing and deployment now. It has already been tested in the 3gpp SA4 eCall candidate competition.

(6) Please describe your licensing policy (IVS and PSAPs)

In the event RIM has patents essential to implement its eCall modem and its modem is adopted by the industry, then RIM will license its eCall modem essential patents Royalty Free to companies in the industry who do not assert their patents against RIM or against RIM through its customers.

This modem proposal for eCall is documented in 3GPP documents S4-080457 "TS 26.xxx eCall Data Transfer - in-band modem solution; General Description (Release 8)" and S2-080458 "TS 26.xxx+1 eCall Data Transfer - in-band modem solution; ANSI-C Reference Code (Release 8)"

You may use PowerPoint presentations to present your technology.

For any questions concerning this discussion point, please contact Mr. Emilio Davila (Tel.: (32-2) 2962188, e-mail: Emilio.Davila-Gonzalez@ec.europa.eu)

Thank you in advance for your kind contribution to this meeting.

Looking forward to meeting you in Brussels,

Andre Vits

Head of Unit