Noordwijk, 31 March 2004

Dear Sir,

You are herewith cordially invited to attend a **Half-day Workshop** and a **Final Presentation** of an ESA funded project carried out by **IABG** (G), in partnership with **6WIND** (F) on:

Standardization Support of enhanced IETF IP Encapsulation Techniques (IP over DVB)

The project will present the development of a new general purpose IP(v4/v6) encapsulation protocol which can work over ISO MPEG-2 transport streams. The new encapsulation method was verified in an implementation and in an interoperability test. The results were presented to IETF community and supported the foundation of a working group (ipdvb, http://www.ietf.org/html.charters/ipdvb-charter.html) in this area.

The Final Presentation will take place at the ESTEC premises in Noordwijk, the Netherlands in the **ESCAPE Dance Room, on Tuesday 20 April 2004**, **10.00h – 12.30h**.

The following is an outline agenda:

10:00 – 10:10 Introductions (ESA/IABG)

10:10 – 12:00 Presentation on the following study topics:

- Overview of Encapsulation Techniques
- Introduction to ULE
- Description of Software Design and Implementation
- Interoperability Tests Results
- Advanced Demonstration Results
- Special Dissemination Activities – IETF, SILK
- Recommendations and Conclusion based on Project Results

12:15 – 12:30 Questions and informal discussions

Project Summary

The project analysed current IP-over-DVB encapsulation schemes (e.g. MPE) and also new proposed encapsulation methods (e.g. `draft-fair-ipdvb-ule-02.txt`) with respect to their suitability for building IPv4 and IPv6 compatible networks over links using ISO MPEG-2 transport streams.

Furthermore, the project has implemented the proposed Internet draft `draft-fair-ipdvb-ule-02.txt` in the 6WINDGate 6221 that is a commercial, fully IPv4 / IPv6 enabled router of 6WIND (F). The project has performed interoperability tests with another independent implementation done by GCS (A) and University of Salzburg (A) in partnership with Joanneum Research (A), EMS (CAN), and University of Aberdeen (UK). Additionally, the project demonstrated the usability of ULE in advanced demonstrations that addressed scenarios typical for ISPs or teleport operators.

IPDVB Workshop

After the Final Presentation of IABG (G) and 6WIND (F) a workshop is planned in the **ESCAPE Dance Room, 13:30h – 16:30h,** to bring together interested parties, vendors, and users. Participants are encouraged to read the current WG document http://www.ietf.org/internet-drafts/draft-ietf-ipdvb-ule-00.txt.

The intended format of the workshop is to give a short introduction on the various proposed topics as kick start for open discussions which should reveal current needs / issues and provide input to future work.

The following is an outline agenda:

13:30 – 13:45 Introduction

13:45 – 16:00 Discussion of various IP-DVB topics such as:

- ULE security requirements
- Requirements for FEC on SNDU level
- Requirements for ULE extension headers
- Address resolution IPv4 / IPv6
- Next steps in IETF ipdvb WG
- Applicability of ULE in ETSI BSM

16:00 – 16:30 Conclusion and next steps

NOTE: Confirmation requested for external visitors

Please confirm your attendance by email to Frank.Zeppenfeldt@esa.int, in order to gain access to the ESTEC premises. A badge will be waiting for you at the main entrance gate. Information on ESTEC and a route description can be found on http://www.estec.esa.nl/pr/estecinfo/contact.php3 .

Yours sincerely,

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