Requirements for Transmission of IP Datagrams over DVB-S2

draft-cantillo-ipdvb-S2encaps-01.txt

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Draft Status as of IETF 64. Reminders

▶ draft-cantillo-ipdvb-s2encaps-00, presented at IETF 63
  - *Future of IP over satellite networks & DVB-S2*
  - *Technical intro to DVB-S2*
    - *Longer BBFRAMES + an improved/adaptive physical Layer*
    - *IP over Transport Streams… or **Generic Streams***

▶ The main goal is to provide a framework to achieve an efficient encapsulation of IP over Generic Streams in DVB-S2
  - *GS is a strong candidate to replace MPEG2-TS for IP in the forward link*
  - *No standard adaptation layer has been defined yet*
  - *Definition of detailed requirements in our draft*

▶ DVB-GBS ad-hoc group is also working on a document defining a methodology to evaluate IP/GS/DVB-S2 protocols
  - *A call for proposals is to be issued soon*
  - *Preliminary comments have been sent to the ad-hoc group*
  - *An open door for synergic work with IPDVB*

What changed from v00 ?

▶ A totally re-written document following the discussions of IETF 63, integrating comments from list members and from 3rd parties (e.g. Newtec, Belgium)

- *Comprehensive glossary added*
- *Added a didactic/illustrated overview to DVB-S2*
- *Document structure reviewed and detailed*

▶ Included more personal remarks and ideas of the authors

- *e. g. TS and GS are not that different*
- *e. g. Why not open the way for some cross-layer optimizations?*
  - BBHEADERS re-use
  - CRC vs. FEC issues

Pending Issues

▶ **What direction are we following?**
- *DVB-GBS is advancing in the same direction*
- *Some DVB-S2 compliant modulators are already available*

▶ **Possibility to define common methods with ULE**
- *Convergence with new ideas, cf. draft-fairhurst-ipdvb-s2-gule-00*
- *Experience gained with ULE is of great value*
- *Potential re-use (partially at least) of ULE-compliant devices*

▶ **Some technical points are to be studied more in detail**
- *Scheduler definition and impact*
- *Fragmentation schemes to be supported*
- *L2 error control issues*
- *Integration of QoS*

What comes next

▶ **IAB and WG charter issues ?**

- *What are the actions to be taken at IETF regarding this work?*

▶ **Definition of an IP over GS/DVB-S2 encapsulation protocol**

- *Experience of IPDVB is of great value for the future of this work*
- *DVB-GBS call for proposals*
- *IPDVB / DVB-GBS coordination to be defined*

▶ **Implementation aspects!**

- *Not yet…*

Conclusions (Re)

▶ DVB-S2 : a new standard that will replace DVB-S
  - *"DVB-S2 is so powerful that in the course of our lifetime, we will never need to design another system" (Alberto Morello, Chairman of the DVB-S2 TM)*

▶ IP over GS is a hot topic now
  - *See proceedings of ICSSC and 11th Ka and BroadBand Communications Conference, Rome, September 2005*
  - See discussions of the DVB-GBS ad-hoc group

▶ Does the scope of the WG cover IP/DVB-S2 ?
  - *IP/DVB-S2 is the future of IP over satellite networks in the forward link*
  - *GS is a strong candidate to replace MPEG2-TS for IP*
  - *May be the best chance for long term deployment of techniques developed in the IPDVB WG*

▶ Future work?
  - *Concerning the WG charter?*
  - *Concerning the I-D future ?*

THANK YOU!

QUESTIONS ?