The DVB-RCS MIB

draft-combes-ipdvb-mib-rcs-00.doc

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ipdvb WG
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SatLabs Group basics

- **Association set up to bring the DVB-RCS (EN 301 790) standard to large-scale adoption**
  - Foster availability of interoperable products
  - Ensure availability of solutions for interoperability testing and certification

- **Membership open to all organizations worldwide interested in the DVB-RCS standard**
  - Network/Service providers
  - Satellite operators
  - Satellite manufacturers
  - DVB-RCS system suppliers
  - Equipment/technology suppliers

- **Main emphasis on interoperability but addressing other aspects related to DVB-RCS implementation**

- **Creation: October 2001.**
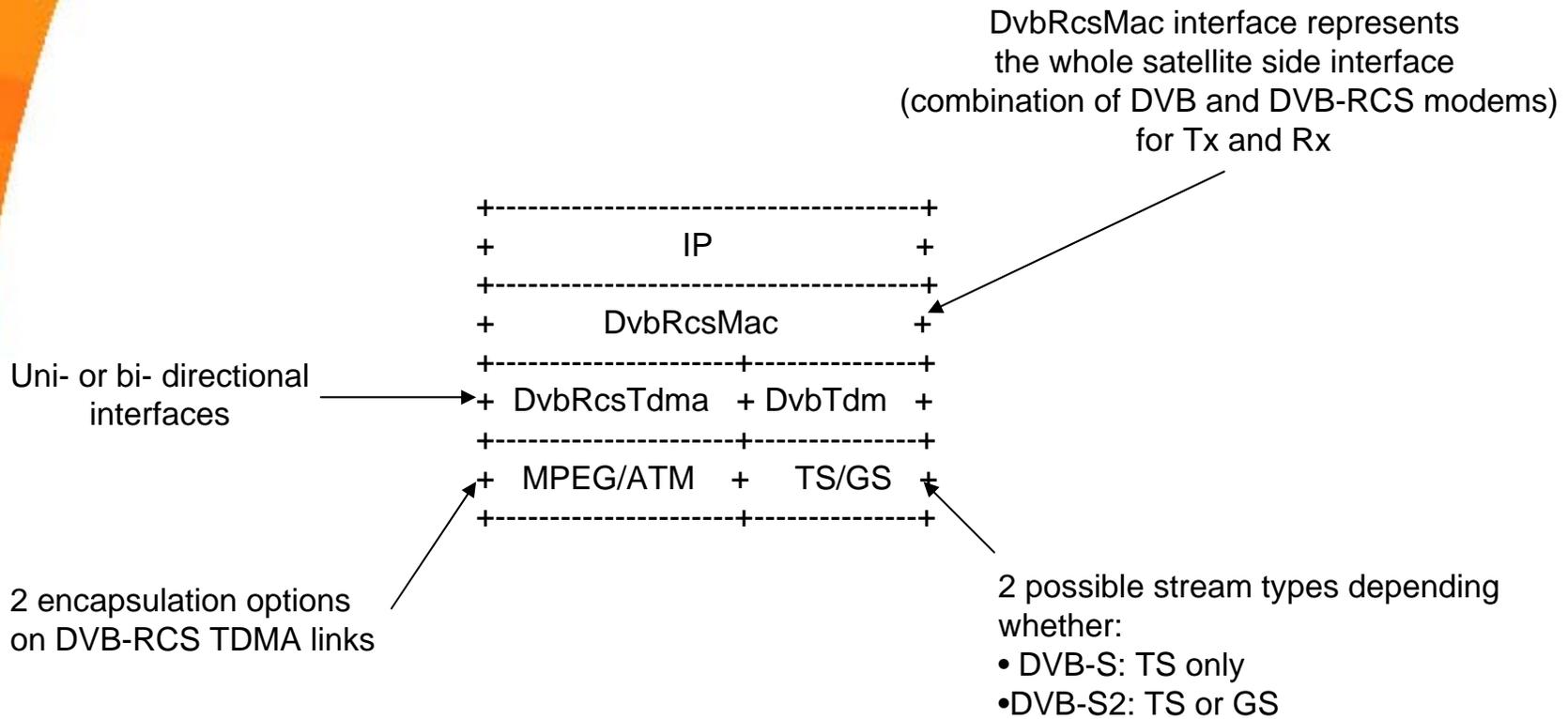 - EEIG (European Economic Interest Grouping) status since 2005.

SatLabs Group Interoperability activity

- **Objective**
  - complement the DVB-RCS standard with recommendations and guidelines to facilitate DVB-RCS terminal interoperability, and to provide a mechanism for formal DVB-RCS interoperability certification.

- **Interoperability Phase 1 (2005-2006)**
  - Basic interoperability: DVB-RCS specification
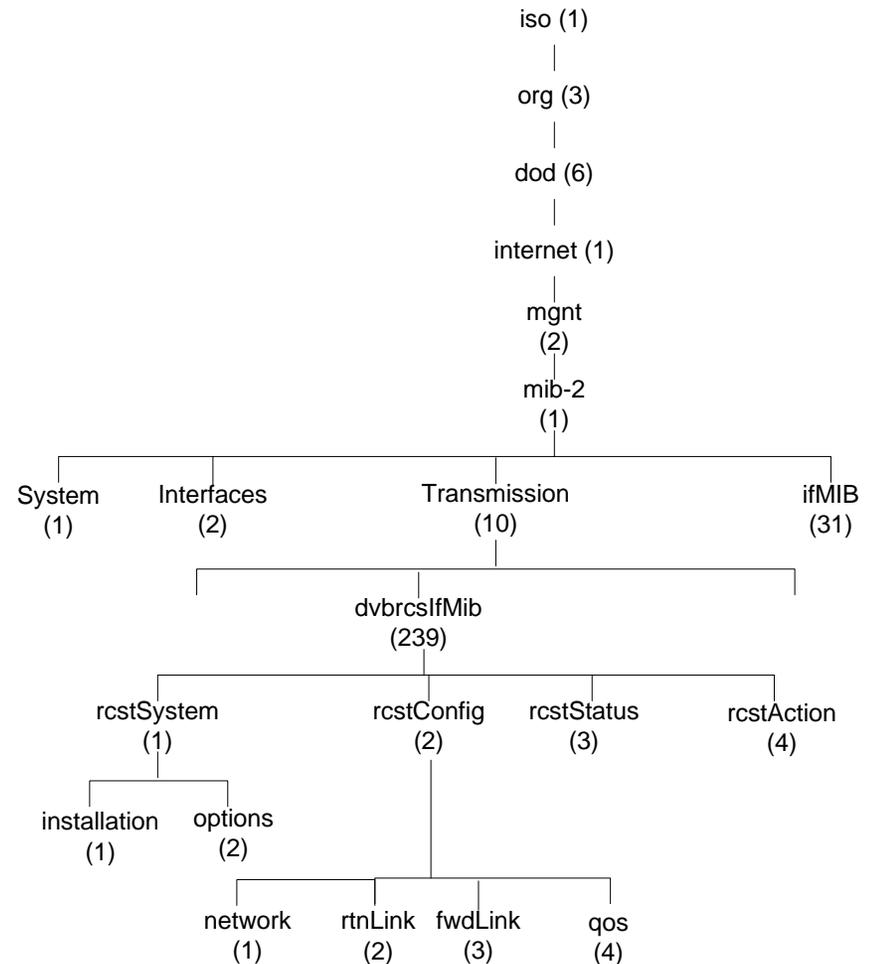 - Phy+MAC layer compatibility

- **Interoperability Phase 2 (2007-)**
  - Extend the level of interoperability beyond the DVB-RCS specification to cover areas such as:
    - Management & control (<u>including MIB</u>)
    - Quality of Service
    - TCP/IP – HTTP acceleration
  - Recommendations published as "SatLabs System Recommendations, version 2", publicly available at www.satlabs.org

DVB-RCS protocol stack

DvbRcsMac interface represents
the whole satellite side interface
(combination of DVB and DVB-RCS modems)
for Tx and Rx

```
+-------------------------------------+
+                 IP                  +
+-------------------------------------+
+              DvbRcsMac              +
+--------------------+----------------+
+   DvbRcsTdma       +   DvbTdm       +
+--------------------+----------------+
+   MPEG/ATM         +   TS/GS        +
+--------------------+----------------+
```

Uni- or bi- directional
interfaces

2 encapsulation options
on DVB-RCS TDMA links

2 possible stream types depending
whether:
• DVB-S: TS only
•DVB-S2: TS or GS

The DVB-RCS MIB

- **The DVB-RCS MIB is located under iso.org.dod.internet.mgnt.mib-2.transmission.**

  – It holds information which is useful for the satellite interface as a whole (in DVB-RCS, DvbRcsTdma is very much dependent on DvbTdm and cannot exist alone).

  – It includes four sub-groups: rcstSystem, rcstConfig, rcstStatus and rcstAction.

iso (1)

org (3)

dod (6)

internet (1)

mgnt (2)

mib-2 (1)

| System (1) | Interfaces (2) | Transmission (10) | ifMIB (31) |

dvbrcsIfMib (239)

| rcstSystem (1) | rcstConfig (2) | rcstStatus (3) | rcstAction (4) |

installation (1) options (2)

network (1) rtnLink (2) fwdLink (3) qos (4)

IANA assigned number for DVB-RCS

- The following ifType values have been assigned:
  - **239   dvbRcsMacLayer   DVB-RCS MAC Layer**
    [ETSI EN 301 790, SatLabs]
  - **240   dvbTdm   DVB Satellite TDM**
    [ETSI EN 300 421, ETSI EN 302 307, SatLabs]
  - **241   dvbRcsTdma   DVB-RCS TDMA**
    [ETSI EN 301 790, ETSI EN 300 421, SatLabs]

- The following transmission number has also been assigned:
  - **239   dvbRcsMacLayer   DVB-RCS MAC Layer**
    [ETSI EN 301 790, SatLabs]

- See the following registries:
  - **http://www.iana.org/assignments/smi-numbers**
  - **http://www.iana.org/assignments/ianaiftype-mib**

DVB-RCS MIB and ipdvb WG

- **This MIB was produced by an industry consortium**

- **It does not require that change control be ceded to the IETF**
  - Maintenance will be done by SatLabs

- **It conveys information for the Internet community**
  - It should aimed at becoming an Informational RFC

- **The draft will be posted when the I-D archives re-open**