TITLE **SpM-1 & SpM-2 meeting report.**

PROJECTS SpM-1 & SpM-2

SOURCE: Rapporteur

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STATUS for inclusion in the TM6 meeting report

4.8 Spectral Management (TR 101 830)
The rapporteur of part 1 and part 2 compiled the partial report of this section in WD14

4.8.1 DTS/TM-06042 Spectral Management (TR 101 830-1 Part 1: Definitions and Signal Library)
The most recent version is V1.4.1, and was published by ETSI in march 2006. A work item to revise this document was opened during the sept 2006 meeting of TM6, mainly to add VDSL2 signal descriptions.

4.8.1.1 Work Plan
The Rapporteur, Rob van den Brink (TNO/KPN), chaired this session and presented his work plan in WD04. There were no objections raised against this work plan.

- TD12 BT Description of “VDSL2-UK1” signals, for SpM in the UK

4.8.1.2 Contributions
In **TD12**, BT proposes to add a spectral management description of “VDSL2-UK1” signals that are compliant with the UK Access Network Frequency Plan (ANFPi3). This plan was recently updated to allow for VDSL2 stystems using bandplan “997” and mask “B7-1”.
The contribution was well received, and triggered many questions to learn from the way it was implemented in the UK. It illustrates that more operators are observing the benefits to add signal descriptions to SpM-1 that meet their national cable plans.
TD12 resulted in a new studypoint: SP1-3.

4.8.1.3 Status of Living List for Spectral Management part 1
The living list was uploaded before the meeting as m06p09a01.pdf, and reviewed during the meeting. One new study point was added (SP1-3), Sp1-1 moved to agreed and Sp1-2 moved to provisionally agreed. The table below summarizes the status of the Study Points for this Work item, at the end of the meeting.

SP	Title	Owner	Status
1-1	Descriptions for “VDSL2-NL1” signals (over POTS)	Rob van den Brink (KPN/TNO)	Agreed
1-2	Descriptions for “VDSL2-NL2” signals (over ISDN)	Rob van den Brink (KPN/TNO)	Prov. agreed
1-3	Descriptions for “VDSL2-UK1” signals	John MacDonald (BT)	US

4.8.1.4 Status of Draft deliverable for Spectral Management part 1
A draft will be created as soon as the first study points are being agreed.

4.8.2 DTS/TM-06043 Spectral Management part 2, (revision of TR 101 830-2 Technical methods for performance evaluations)

4.8.2.1 Work Plan

The Rapporteur, Rob van den Brink, chaired this session and presented his work plan in WD04. There were no objections raised against this work plan.

<crosstalk models, SP2-4 and SP2-5>

- TD30 Swisscom Clarifications to text proposal on crosstalk models

<transmitter models, SP2-6>

- TD33 TNO/KPN Algorithmic model for VDSL2 transmitters

TD33 was not finished in time, has been withdrawn by TNO, and will be contributed to the next meeting.

4.8.2.3 Contributions

In **TD30**, Swisscom shared their impression that the proposed text on crosstalk modeling is currently not totally clear, and that off-line discussions could not solve all their questions. TD30 proposes to solve the unclarities by replacing a few sentences, and by adding some further text improvements. The rapporteur asked the floor afterwards if these unclarities are a general feeling, but no other delegate confirmed this.
Due to these unclarities the proposed text modifications would not deliver the expected solution. An ad hoc discussion made clear that the underlying problem is essentially a misunderstanding of the meaning of crosstalk levels in a pure statistical sense and misunderstanding of concepts like “probability power limits” (e.g. 99% limits) when cables are only partly filled with disturbers. A possible solution is to enhance the text with an extra introductory paragraph explaining these concepts before a model for cumulating these limits is discussed (cumulation expresses how a probability limit changes with the number of identical disturbers). Contributions are invited for such an introductory text.
Further it was noted that several of the raised issues were already solved by the Rapporteur while incorporating a slightly modified text in the latest living list.

Although **TD33** was withdrawn (because it was not completed yet) and not uploaded, TNO presented a preliminary version to collect views from the floor. The approach in TD33 was considered as a good step in the right direction to solve modeling of VDSL2 transmitters, but more work has to be done. TNO expects to upload within three weeks a version for next meeting, and will announce it to invite TM6 for comments for further improvements.

4.8.2.4 Status of Living List for Spectral Management part 2

The living list was uploaded before the meeting as m06p05a03.pdf, and reviewed during the meeting. No new study points were added, and not status was changed. The table below summarizes the status of the Study Points for this Work item, at the end of the meeting.

SP	Title	Owner	Status
2-1	Performance model for ADSL2	Bernd Heise (Infineon)	US
2-2	Performance model for ADSL2plus	Bernd Heise (Infineon)	US
-3	Modelling sidelobe pick-up in DMT Receivers	Olivier van de Wiel (Broadcom	Deleted (sept 2006)
2-4	Multi node crosstalk models, restricted to the case that all LT nodes are co-located, and NT distributed	Czech Telecom (Milan Meninger)	Prov Agreed
2-5	Multi node crosstalk models, with both LT nodes and NT nodes distributed	Czech Telecom (Milan Meninger)	Prov Agreed
2-6	Basic transmitter/disturber model for VDSL2	Swisscom (Andreas Thöny)	US
2-7	Model for VDSL2 PSD template variations	Swisscom (Andreas Thöny)	US
2-8	Model for VDSL2 PSD shaping for remote deployment	Swisscom (Andreas Thöny)	US

(**PA** - Provisionally Agreed; **PD** - Provisionally Deleted; **US** – Under Study.
The meeting number indicates the meeting at which the study item was created or the status last changed or confirmed.)

4.8.2.5 Status of Draft Deliverable

A first draft will be created as soon as the first items on the living list are being agreed.

Working group approval was originally scheduled for this meeting, but it was decided to postpone it by 3 meetings (for the nov 2007 meeting), to enable agreements on cross talk modeling and the VDSL2 transmitter model.

4.8.2.6 Liasons

No liaisons were demanded during this meeting.