ETSI WG TM6

(ACCESS TRANSMISSION SYSTEMS ON METALLIC CABLES)

Permanent Document

TM6(99)08

Revision 4

Living List for updating TR 101 830-1 Spectral Management

This document is the living list of current issues connected with the updating of ETSI's spectral management report TR 101 830-1, which is dedicated to "Part 1" issues;
The target is to achieve working group approval by the end of the ETSI-TM6 meeting in Gent (may 2001), so that the first update of the SpM report can be published by ETSI in summer 2001. Issues that are (still) unsolved by that time, are scheduled for a second updated, probably in 2002.

The issues labeled as "Part 2" form an informal living list containing items for further study, either as a revision of part 1 or as a potential new part 2 work item. This has not been decided yet by ETSI-TM6.

Work Item Reference	DTS/TM-06020-1
Permanent Document	**TM6(99)08**
Filename	990p08a4.pdf
Date	may 2001

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mark the above changes, since feb 2001

1. STUDY POINTS PART 1

SP	Title	Owner	Status
1-1	Complete signal description for ADSL FDD over POTS	Peter Reusens	Under Study
1-2	Complete signal description for ADSL FDD over ISDN	Peter Reusens	Under Study
1-3	Complete signal description for ISDN-PRA	Marco Loeffelholz DTAG	Prov. Deleted
1-4	Improvement of scope and legal status of report	George Eisler	Deleted
1-5	Review of peak amplitudes of all signals in the library	Bill Pechey - Paradyne	Under Study
1-6	Complete signal description for SDSL	Ragnar Jonsson - Conexant	Agreed
1-7	Review of power feeding issues	Rasmus Trevland - NPTA	Under Study
1-8			
1-9			
1-10			
1-11			
1-12			
1-13			
1-14			
1-15			
1-16			
1-17			
1-18			
1-19			

2. STUDY POINTS POSSIBLE PART 2 (SCOPE NOT YET DEFINED)

SP	Title	Owner	Status
2-1	Spectral management rules for non-stationary signals.	Rami Verbin (Orckit)	under study
2-2	Limits for noise that may leak into the local loop wiring	Rob Kirkby (BT)	under study
2-3	Scope, Objective and Table of Contents	Rob Kirkby & Kevin Foster	under study
2-4	Wetting Current requirements	BT	under study
2-5			
2-6			
2-7			
2-8			
2-9			

The current agreed procedure for changing the status of living list items is in Annex A of TM6 working methods.

Part 1 study points

SP 1-1. Complete signal description for ADSL FDD over POTS

The ADSL standard is dedicated to echo cancelled systems, using signals with frequency overlap. FDD versions of ADLS, with no frequency overlap, do exist as proprietary systems, but are not covered by ETSI standards. As a result a signal description for Spectral Management purposes is lacking.

This study point is dedicated to define the description of a "proprietary" signal category for FDD versions of ADSL over POTS, or a "standard" signal description when these systems are included in the ADSL standard.

Status: Under study (this issue has to be solved by the ADSL standard first)

SP 1-2. Complete signal description for ADSL FDD over ISDN

Similar to study point 1-1, but dedicated to ADSL over ISDN.

Status: Under study (this issue has to be solved by the ADSL standard first)

SP 1-3. Complete signal description for ISDN PRA.

A signal category, dedicated to systems using HDB3 line coding, has been included in Part 1. They hold for sine shaped transmit pulses when a randomized bit sequence is transmitted. In other cases the signal description is assumed to be inadequate. This study point is dedicated to define additional means to cover the full signal space of these kind of legacy systems.

Status: Prov. Deleted

SP 1-4. Improvement of scope and legal status of report.

Concerns about the way some sentences are phrased in Part 1, from a legal point of view.

Status: Deleted

SP 1-5. Review of peak amplitudes of all signals in the library

The Peak Amplitude definition has been refined. On several places, however, the current numbers are not accountig for continuously transmitted stream of filters that has passed output filtering. The Peak Amplitude values of all signal descriptions need to be checked (and updated) if they are correct and in line with the updated peak amplitide definition.

Status: Under study

Related Contributions:

- *TD21, Vienna 2000 - Definition of Peak Amplitude - Paradyne*

SP 1-6. Complete signal description for SDSL

This study point is dedicated to define the spectral management description of the "SDSL" signal category, derived from what is written in the SDSL standard. The text in TD15 (Vienna) has been incorporated after an editorial change, but some refinement is still required.

Status: Agreed

Related Contributions:

- *TD15, Vienna 2000 - Proposed spectral management text - Conexant*
- *TD07, Monterey 2000 - Refinements to proposed SpM text for SDSL - Conexant*

SP 1-7. Review of power feeding issues

This study point is dedicated to improve some inconsistenties and ambiguities on the Power Feeding clauses. The current numbers are system dependent, while the power feeding issue is more related to (system independent) safety requirement. The draft update of TR 101 830-1 has made this more visible, by combining all power feeding issues into one cluster, but this has still to be improved (e.g. reducing the number of power feeding classes). Contributions are invited

Status: Under study

Related Contributions:

- *TD20, Monterey 2000 - Modification of information on Feeding Power - NPTA*
- *TD13, Sophia 2001 - Modification of information on Feeding Power - NPTA*

Part 2 study points

SP 2-1. Spectral management rules for non-stationary signals.

It was observed that the combined impairment from modems that are rapidly switching on and off over a period of time is much more destructive to ADSL then when these modems are continuously transmitting their signals. This is identified as "non stationairy noise". The effect of non-stationairy transmission in general on ADSL modems has not been fully understood. Is it a performance issue, related to the way a victim xDSL modem is implemented, or is it a spectral management issue that requires a way to bound the amount of non-stationairy behaviour of signals that are injected into the Local Loop Wiring.

This study point is dedicated to the analysis of the impact of non-stationary cross talkers on legacy systems, and to find a way to bound the amount of non stationary noise.

Status: Under study

Related Contributions:

- *TD25, TD26,TD35,TD53, Montreux 2000 - Alcatel*
- *TD24, Helsinki 2000, Impact of non-stationary crosstalk on legacy ADSL modems - Orckit*
- *TD52, Vienna - Alcatel*
- *TD53, Vienna 2000, Stationarity requirements for spectral compatibility - Tioga*

SP 2-2. Limits for noise that may leak into the local loop wiring

The signal library of the Spectral Management report Part 1 is intended to be refered to when transmitting signals through unbundled access networks. This scope is restricted to transmission through the local loop wiring, and does not cover signals that leak by accident into the loocal loop wiring from one end side . This may occur for signals that flow through in house networks, such as home PNA systems, that are not isolated in a proper way from the LLW (e.g. by means of low-pass filters). This study point is dedicated to defining proper limits for the amount of signals that my leak into the LLW to prevent impairment of xDSL systems that make use of the LLW. It also addresses how to measure it.

Status: Under study

Related Contributions:

- *TD40, Helsinki 2000, Consideration if ITU-T G.pnt.f in ETSI Spectral Management Plan*
- *TD 16, Sophia 2001, To measure noise leaking into the local loop - BT*

SP 2-3. Scope, objectives and Table of contents

There is a common feeling that a "Part 2" document is required in near future. To open a work item on this topic, there shall be a clear view on its scope, its objectives and its TOC. This studypoint is dedicated to define this. TD17 (Sophia) proposed some initial text

Status: Under study

Related Contributions:

- *WD04, Monterey 2000 - Text proposal for Scope of SpM part 2 - BT*
- *TD 17, Sophia 2001, To measure noise leaking into the local loop - BT*

SP 2-4. Wetting current

Loop unbundling can bring a situation that wires are used by xDSL systems only, without any remote power feeding or ringing current. Some splices can degenerate from this lack of dc-current due to oxidation. If true, a wetting current requirement can prevent this. If only true for a limited number of cables this "requirement" cannot be mandatory. This issue is for further study, since we are dealing with expertise from the past, that is currently not available within ETSI-TM6, and might even have been lost.

Status: Under study

Related Contributions:

- *TD10, Sophia 2001 - BR requirements for SDSL Wetting Current - BT*