ETSI WG TM6

(ACCESS TRANSMISSION SYSTEMS ON METALLIC CABLES)

Permanent Document

TM6(99)08

Revision 1

Living List for DTS/TM-06016

Spectral Management

This document is the living list of current issues connected with the drafting of ETSI's DTS/TM-06016. This document should be read in conjunction with the Draft DTSI/TM-06016 to which it refers.
It is dedicated to Part 1 issues;
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-06016
Permanent Document	**TM6(99)08**
Filename	990p08a1.*
Date	sept 2000

Rapporteur/Editor **Rob F.M. van den Brink**
KPN Research
PO Box 421
2260 AK Leidschendam
The Netherlands
tel: +31 70 3325389
fax: +31 70 3326477
email: R.F.M.vandenBrink@research.kpn.com

1. STUDY POINTS PART 1

SP	Title	Owner	Status
1-1	Complete signal description for ADSL FDD over POTS	Lorenzo Magnone	Under Study
1-2	Complete signal description for ADSL FDD over ISDN	Lorenzo Magnone	Under Study
1-3	Complete signal description for ISDN-PRA	Marco Loeffelholz DTAG	Under Study
1-4	Improvement of scope and legal status of report	George Eisler	Prov. Deleted
1-5			
1-6			
1-7			
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			
2-4			
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.

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 systesm, 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.

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

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

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.

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.

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

It was observed that the combined impairment from modems that are switched 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 stationaire 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.

Related Contributions:
TD24, Helsinki, 2000, The impact of non-stationary crosstalk on legacy ADSL modems - preliminary analysis; Orckit

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.

Related Contributions:
TD40, Helsinki 2000, Consideration if ITU-T G.pnt.f in ETSI Spectral Management Plan