Project: VDSL2

Title: First proposal for VDSL2 noise profiles

Source: FTW

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Abstract:

This paper gives a first suggestion for VDSL2 noise profiles.

Distribution: ETSI STC TM6 working group members

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Introduction

In contribution TD19 [3] the Definition of European VDSL2 noise models were identified as being very important and of highest priority. This noise model will be needed to establish both UPBO parameters and a future testing environment and its performance targets.

This proposal is based on the European Spectral Platform 2004 (ESP/2004) [1,2,4] with a serious effort to merge as many of those scenarios as possible. Especially note that there is a large number of PSD masks and that the simulation effort will be multiplied with the number of noises when we want to generate UPBO values or generate performance numbers.

Alien noise proposal

DSL type	**Medium Penetration**	**High Penetration**
SDSL 1M	5	5
SDSL 2M	5	10
ADSL Annex A	10	22
ADSL Annex B		12
ADSL2+ Annex A	10	33
ADSL2+ Annex M	10	33
ISDN 2B1Q	7	50

Number of self noise modems proposal

Self noise	**Medium Penetration**	**High Penetration**
VDSL2 From Exchange	10	30
VDSL2 From Cabinet	*20*	*Not applicable?*

The last row was added after the discussion.

In the discussion following the presentation of the table(s) a few questions where rised:

- Should we use PSD masks or template PSD's (from SpM-part2)?
  => Use templates from SpM-part2

- Distance to the Cabinet from CO?
  => 1500m

- Cable Model?
  => TP100

Other questions that where raised that didn't get resolved where:

- How to specify any VDSL2 shaping, e.g. when VDSL2 is deployed from a cabinet?
- Will any operator mix VDSL2 deployment from Exchange and Cabinet in the same bundle, esp. note local loop unbundlin cases?

It was also noted that the significance of the selected values are unknown and that the significance should be investigated before they are “cast in stone”.

References

[1] R. Persico, “Framework for spectral management studies on e-SDSL and ADL-64”, ETSI TM6 contribution 033t04, Sophia Antipolis, September 2003.
[2] R. Persico, “Additional assumptions and requirements for the simulations on SP15”, ETSI TM6 contribution 033w08, Sophia Antipolis, November 2003.
[3] Andreas Thöny and Philippe Repond, “Priorities for Annex B G.993.2”, ETSI TM6 contribution 053t19, Gent, Belgium, Sep. 2005.
[4] ETSI, “European Spectral Platform 2004 (ESP/2004)”, Section 9.1 in ETSI TR 101 830-2 V1.1.1, “Spectral management on metallic access networks; Part 2: Technical methods for performance evaluations”, Sep. 2005