Project: VDSL2

Title: Second proposal for VDSL2 noise profiles

Source: FTW

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Abstract:

This paper gives a second suggestion for VDSL2 noise profiles.

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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 is an updated proposal for VDSL2 noise profile mixture which is based on WD26 [5] and e-mail comments given to that proposal. It avoids using Annex M by mixing Annex A and B, it further have increased the number of ADSL modems in the high penetration case to match what has been used in ADSL, ADSL2+, and SDSL standards.

Alien noise proposal

DSL type	**Medium Penetration**	**High Penetration**
SDSL 1M	5	10
SDSL 2M	5	20
ADSL Annex A	5	68
ADSL Annex B	5	36
ADSL2+ Annex A	5	47
ADSL2+ Annex B	5	29
ISDN 2B1Q	5	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.

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
[5] T. Nordström, “A first proposal for VDSL2 noise profiles”, ETSI TM6 contribution 053w26, Gent Belgium, Sep. 2005.

A table of ETSI xDSL noise models

	ADSL				ADSL2+			SDSL				VDSL1						ESP/2004					VDSL2							
	A	B	C	D	A	B	D	A	B	C	D	A	B	C	D	E	F	HPM	HPR	MPM	MPP	MPI	MP1	HP1	SWC	"TI"		MP2	HP2
ISDN 2B1Q	90	10	10		90	10		90	10	10		20	20	20	90	20	20	50	97	14	14		7	50	50	20		5	50
ISDN 2B1Q (filtered)																		25	53	7									
ISDN-PRI			4							4				2			4												
ISDN MMS43																						14							
ISDN MMS43 (filtered)																						30							
HDSL 2B1Q/2	40	4	4		40	4		40	4	4		4	4	4	10	4	4	6		2	2	2				10			
HDSL CAP/2																		4	6										
SDSL 1024																		5	16	4	4	4	5	5	5	6		5	10
SDSL 2048																		10	16	5	5	5	5	10	10	7		5	20
SDSL 23nn	90	15	15		90	15																				7			
SDSL-self								*90*	*15*	*15*	*49*																		
ADSL Lite									10	10			10			20	20												
ADSL over POTS FDD																		75	63	18	25		10	22	48	10		5	68
ADSL over POTS EC								90				10		10	90				21										
ADSL over ISDN FDD																		25	96	7		25		12	16			5	36
ADSL over ISDN EC								90	5	5					90	10	10		32										
ADSL 2+ Annex A																							10	33	27	20		5	47
ADSL 2+ Annex B																									9			5	29
ADSL 2+ Annex M 64																							10	33					
ADSL-self	*180*	*15*	*15*	*49*																									
ADSL2-self					*180*	*15*	*49*																						
VDSL 1 (FTTEx)																		12	25	5	5	5							
VDSL 2																													
VDSL-self												*20*	*20*	*20*	*20*	*20*	*20*												
VDSL2-self																							*10*	*30*		*20*		*10*	*30*
Total no BB xDSL:	310	34	34	49	310	34	49	310	34	34	49	34	34	34	210	54	54	137	275	41	41	41	50	145	115	80	0	40	240	0
Total no xDSL:	400	44	48	49	400	44	49	400	44	48	49	54	54	56	300	74	78	187	372	55	55	55	57	195	165	100	0	45	290	0

Reference 012t18 044w09 992t09 (cf. 980P10a5) TR 101 830-2 V1.1.1 (2005-10) E-mail 054w24
053w26 054w22r1