TITLE Harmonizing some terminology about Spectral Management

PROJECTS SpM – part 1

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STATUS for Decision

ABSTRACT Spectral Management terminology like "deployment rules" is commonly used, but

the confusion during the last ETSI-TM6 meeting made clear that different

meanings were given to the same words. This contribution proposes to harmonize terminology like "deployment rules", "access rules", "peak mask of a PSD", "nominal mask of a PSD" and "template of a PSD", and to include their definitions

in "part 1, 2 and 3".

1. Rationale behind this proposal.

During the discussions in the latest ETSI-TM6 meeting about spectral management, it became clear that a lot of confusion was caused by the fact that different deligates used different interpretations for the same phrases. The real cause of this confusion of tongues is that a common terminology about phrases like access rules and deployment rules does not exist.

This contribution proposes to define such a common terminology, to include them in part 1, 2 and 3 of the Spectral Management report, and to refrain from using related terminology that isn't (or cannot) be defined in an unambiguous way. This means that ambiguous phrases like "spectral management rules" should be avoided, unless defined.

During the the discussions in the latest ETSI-TM6 meeting about VDSL PSD's, it became also clear that concepts like "masks" and "templates" were sometimes mixed up. The same applies for suffixes like "nominal" and "peak". This contribution proposes to define them as well.

2. Proposal

We propose to include the following definitions in "part 1, 2 and 3" and to comply to this terminology unless additional terminology has be defined first.

Loop operator: <Replace current definition in part 1 about "network owner" into "loop operator"

- Explaination 1: since the company that manages the cable is not necessary the owner, the terminology "network owner" is incorrect.
- Explaination 2: Sometimes the word "cable operator" is used here, but this is very confusing since that terminology is commonly used to identify cable television operators that use coaxial lines.

Network operator: <keep current definition in part 1>

(Spectral) Access Rule: Mandatory rule for achieving access to the local loop wiring, equal for all network operators that make use of the same network cable, that bounds the spectral pollution in that network cable.

(Spectral) Deployment Rule: Voluntary rule, irrelevant for achieving access to the local loop wiring and proprietary for individual network operators. Deployment rules reflect the private view of the network operator about what maximum length or maximum bitrate he prefers for offering his transmission service to ensure a chosen minimum quality of service.

(Spectral) Sanity Rule: Voluntary rule, irrelevant for achieving access to the local loop wiring and proprietary for individual loop operators. Sanity rules reflect the private view of the loop operator about what wire pair selection or manipulation he prefers to keep the spectral pollution as low as possible, for offering access to the local loop wiring he manages.

Peak mask of a PSD: This is the maximum level of a PSD, measured within relatively narrow resolution bandwidths, for instance 10 kHz for signals up to 1 MHz. The purpose of specifying peak masks is often to bound the "worst case" values of a PSD.

Nominal mask of a PSD: This is the maximum level of a PSD, measured with in relatively wide resolution bandwidth, for instance 100 kHz for signals up to 1 MHz. The purpose of specifying nominal masks is often to bound the "average" values of PSDs in the pass band. On the edges of PSDs, however, the nominal mask tend to be more capacious, due to the wide nature of the resolution band, and their value has often a limited meaning.

Template of a PSD: These levels represent the "average" values of PSDs over the full frequency band, being close to the nominal mask in flat frequency bands and close to the real PSD near the edges of PSDs.