Evaluation Criteria and Requirements Ad Hoc – Minutes November 8, 2012

Provided IEEE-SA Patent Policy.

- https://development.standards.ieee.org/myproject/Public/mytools/mob/slideset.pdf

Everyone on the call was familiar with the IEEE patent policy.

Bill suggested that we keep the 1 Gb/s in 120 MHz as the objective. Add a requirement for 192 MHz channel.

Leo said that if we assume 190 MHz and 8 bit/subcarrier. I assume this is after FEC. The requirement depends on channel conditions. Above 1 GHz the attenuation is higher so it may be difficult.

Duane said that the channel conditions. So we could make it so that we can meet it under some conditions.

Bill suggested we add some description of the channel conditions. So it is a spectral efficiency goal.

Duane said that the channel model group may not have baseline channel conditions in San Antonio.

Leo said that we need to specify the test conditions. We could be for a flat unimpaired channel.

Duane said that is what we do in 802.3 they have to be real-world, but do not have to be onerous. If you have a really good channel you may do better than the objective.

Recommended (Tentative) requirement of 1.6 Gb/s in 192 MHz channel in baseline channel conditions, conditions on the final definition of "baseline channel conditions" from the Channel Model Ad Hoc.

Marek suggested that delay be an evaluation criteria since we do not have a requirement number that we know makes sense.

Duane said we should have a target for delay. We could take the MEF 23.1 and make our budget to be a fraction of MEF 23.1 that would not be very difficult to meet.

Recommended Evaluation Criteria – EPoC Delay using Delay model contribution.
May add a requirement on worst case EPoC delay in the future.

Paul suggested that we have an allowable degradation in an adjacent service, like DOCSIS. So we could list the change in BER.

Duane pointed out then we have to address each of the services.

Bill said we can address it in adjacent channels. Like specify the reduction in power adjacent band. We could look at the DOCSIS bands.

Leo, we have to differentiate those that are outside the 192 MHz channel and those that are inside the 192 MHz channel. In a previous presentation I recommended that we should not allow NTSC within the

192-MHz channel. DOCSIS has a very strict out-of-band emissions requirement to protect NTSC. The document is "DOCSIS RFI" and it is publicly availability. It is something like 60 dB down. It is easier to meet as an out-of-band requirement than in the in-band protection. It would require a DAC of up to 12 bits.

The DOCSIS RFI document can be found at,
http://www.cablelabs.com/cablemodem/specifications/d-rfi.html

Specify power in 6 MHz channel for adjacent and within band, relative to the power in 6 MHz of the signal.

NTSC versus QAM, have approximately 10 dB difference. Operators operate with 6 dB margin.

Need to figure out the required the adjacent channel interference into our own adjacent channels.

Leo pointed out that if the two EPoC channels will have less interference if the adjacent channels are synchronized, due to the sinc function having zero crossing at the subcarriers. In DBV-C2 they specify this issue. The blocks can be processed

Action Items

- Bill volunteered to talk to someone who has worked on MEF 23.1 and find out their model and what makes sense to budget for the access network.

Attendance

Person	**Affiliation**
Marek Hajduczenia	ZTE
Leo Montreuil	Broadcom
Paul Nikolich	YAS Broadband Ventures
Michael Peters	Sumotomo
Christian Pietsch	Qualcomm
Bill Powell	Alcatel Lucent
Duane Remein	Huawei
Steve Shellhammer	Qualcomm
Nicola Varanese	Qualcomm