

Evaluation Criteria and Requirements Ad Hoc – Minutes October 11, 2012

Provided IEEE-SA Patent Policy. Everyone was familiar with it.

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

Everyone is familiar with IEEE patent policy.

Bill suggested delay is a good requirement.

Duane suggested we maintain a list of motions passed due to their implications on requirements. Action Item (Steve) put together list of motions passed by TF as requirements.

Mark said we can do it how it works for us; some groups do a requirements document. Not necessary unless we decide we need a document.

Bill brought up the bucket list. That is a list of items we need to address by this Ad Hoc.

Bill, the delay could be both a requirements and evaluation criteria. MEF might be a set of delay requirements. The delay spreadsheet developed by Andrea and others describes how to measure that delay.

Do we want to have a PHY layer throughput on a 192 MHz channel?

Duane suggested that one method is to scale-up linearly.

Ron Wolf the channel model team need to defined an “unimpaired channel” where the PHY should have full capacity, where the PHY should meet its maximum rate, which would have to meet this data rate requirement. Duane asked about making it a good channel but not unimpaired. Mark pointed out that the objective uses the term “baseline channel conditions.”

Hesham asked which of the MEF 23.1 delay specification we would use. Bill suggested that Metro MEF would be the most likely MEF spec. Mark pointed out that it is an Access Network.

Mark suggested frequency exclusions where we can not operate.

Mark suggested supporting IEEE 1588 time distribution system. Bill said that to be careful to specify that since it is difficult to meet that in a packet system. It does not work well in EPON. Bill suggested that another time measurement system. This is needed for cellular backhaul. Bill can volunteer to prepare a submission on backhaul requirements.

Hesham and Mark suggested EPON service requirements would apply to EPoC.

Stanic said we need to address the disjoint clocks, one on optical side and one on coax side.

Hesham suggest IEEE 1588 v2 as we did in DPoE. We should reuse what was done in DPoE. Bill said we can look at it.

Duane said we need to cover other EPON services, in addition to mobile backhaul. Duane said mobile backhaul is the most stringent.

Bill also suggested Constant bit rate services. This is related to synchronization. For DS1 and E1.

Bill evaluation criteria we need to decide where we measure the spectral efficiency. Suggesting the MAC/PLS interface. Duane agreed that MAC/PLS makes the most sense. Duane suggested that the MAC/PLS interface was used in the objectives.

Steve we could also consider throughput requirements for poorer channel models.

We could also address the poor CNU's problem. We will need to figure out how to evaluate how to deal with impaired devices. Bill we should capture it in the table of categories of evaluation criteria and requirement.

Hesham said that Mark made a presentation on Evaluation criteria. Mark sent out a list of those presentations.

People who can work on different areas

- Bill – synchronization for Mobile Backhaul
- Andrea and Hesham – Delay (MEF)
- Hesham – Adaptive bit loading (impaired CNU's)

Table of Categories of Evaluation Criteria and Requirements

Category	Comments
Delay	Consider MEF 23.1. Measure using delay model and spreadsheet
PHY Throughput of 192 MHz channel measured at MAC/PLC	Need "baseline plant conditions" defined by Channel Model Ad Hoc
Specify specific frequency bands which EPoC must avoid due to regional requirements	Depends on different regions around the world: NA, Europe, Asia
Mobile Backhaul Services support	Will need to support time/frequency synchronization for mobile backhaul, similar to EPON. Look at IEEE 1588v2
Other services supported on EPON	One example is constant bit-rate services
Support for different link qualities to/from different CNU's or on different frequencies	Could be addressed by adaptive bit loading

Attendance

Person	Affiliation
Hesham ElBakoury	Huawei
Brian Kinnard	CommScope
Avi Kliger	Broadcom

Mark Laubach	Broadcom
Leo Montreuil	Broadcom
Kevin Noll	Time Warner Networks
Bill Powell	Alcatel Lucent
Duane Remein	Huawei
Steve Shellhammer	Qualcomm
Joe Solomon	Comcast
Tom Staniec	Zera Corp
Ron Wolfe	Aurora Networks