RF Spectrum Ad Hoc – Minutes January 29, 2013

Provided the IEEE-SA Patent Policy link. Everyone on the call was familiar with the patent policy.

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

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Discuss
EXCLUSION SUB-BANDS: CONFIGURED BY MDIO OR SETUP IN SOME OTHER MANNER?

It was suggestion that there was some misunderstanding between exclusion sub-bands and adaptive bit loading. We could make it clear what we are addressing.

We may want to push off the decision of the size of the exclusion sub-bands till later. There is an interplay with the OFDM pilot structure, bit loading, etc.

Would it make sense to put together a short presentation describing that is addressed by exclusion sub-bands.

You cannot autodetect something that is provisioned.

Another person feels it is premature to specify the resolution of the exclusion sub-bands.

It was suggested that we manage the PHY bandwidth at a subcarrier basis.

In other systems like LTE and WiMAX, they define subcarrier groups, so that is lower resolution than the individual subcarrier.

Today in Cable, in the downstream the highest resolution is 6 MHz, and in the upstream the highest resolution is 200 kHz.

Bill will send an email to the reflector on the compact representation of representing the exclusion sub-bands.

In ingress the PHY could report to higher layer or it could decide itself what channels it will use.

MDIO timing should be fine for this time scale.

Three forms of communication to the PHY: XGMII (Data), MDIO (Management) and PHY Link (from one PHY to the other).

For Ingress, the PHY cannot decide which to use since the MAC needs to know the rate, but it could report problem subcarriers. The PHY would need to report.

Reporting back to the CLT from the CNU, could either use OAM or PHY Link. The PHY Link is more robust, since OAM can only report if the link is up and running. Same set of registered could be communicated over either OAM or PHY Link.

Draft Straw Polls (To be taken up next time)

Straw Poll
Exclusion sub-bands are to be configured by MDIO or the PHY Link channel

Straw Poll
The PHY will have a number of MDIO Registers to report on subcarrier signal quality

Straw Poll
The subcarrier quality registers can be read via the MDIO, and then communicated over OAM. The CNU subcarrier signal quality can also be reported to the CLT over the PHY Link.

Action Items
Duane, Ed, Bill P., Bill K. and Steve – Presentation on Configuration of Exclusions sub-bands

Attendance

Person	**Affiliation**
Edward Boyd	Broadcom
Hesham ElBakoury	Huawei
Jim Farmer	Aurora Networks
Robert Howald	Motorola
Bill Keasler	Ikanos
Mark Laubach	Broadcom
Leo Montreuil	Broadcom
Bill Powell	Alcatel Lucent
Saif Rahman	Comcast
Duane Remein	Huawei
Steve Shellhammer	Qualcomm
Joe Solomon	Comcast
Tom Staniec	Cohere Communications
Peter Wolff	Titan Photonics