PHY Configuration

RF Channel Definition

PHY-0Link Spectrum Ad Hoc
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Configuring the RF Channel

- At the CLT
  - Both US and DS RF Channel(s) parameters are configured via MDIO
    - Center Frequency
    - High/Low/Mid Exclusion Bands EB17
    - US PHY-Link location & width   EB18   D6
- At the CNU
  - Discovered via correlation EB23
    - DS Center Frequency of Primary RF Channel EB19
    - DS PHY-Link (width is defined by standard?) EB27
  - Configured via Primary PHY-Link EB24
    - DS High/Low/Mid Exclusion Bands
    - DS Center Frequency of any Secondary RF Channels EB25
    - US Center Frequency
    - US High/Low/Mid Exclusion Bands
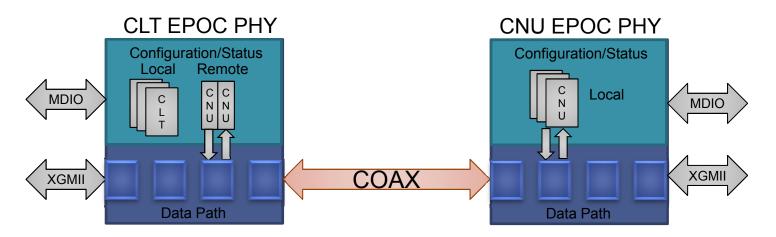   - US PHY-Link location & width EB26

EB17 Exclusion Band Start Carrier Number and Count
Edward Boyd, 1/30/2013

EB18 Downstream PHY Link Location is needed as well.
Edward Boyd, 1/30/2013

EB19 The PHY Link Channel should configure this parameter.
Edward Boyd, 1/30/2013

EB23 This is a hunting procedure.
Edward Boyd, 1/30/2013

EB24 What is primary. I would say remotely configured via PHY Link Channel.
Edward Boyd, 1/30/2013

EB25 DS Frequency of all RF Channels
Edward Boyd, 1/30/2013

EB26 I'm not sure about width. US PHY Link Channel Definition
Edward Boyd, 1/30/2013

EB27 I think that it will be a fixed width but we haven't passed a motion on it yet.
Edward Boyd, 1/30/2013

D6 I think th eDS PHY-Link (at least in the primary RF channel should be defined by standard or discovered. I agree that it wouldn' hurt to reinforce it via configuration.
D00725987, 2/5/2013

Options

- Any CNU PHY register that can be read/set via MDIO can be:
  - read at the CLT via the PHY-Link
  - set by the CLT via the PHY-Link

- Any CNU PHY register that can be read/set at/by the CLT via the PHY-Link can be read/set via MDIO
  - Can limit the registers set via PHY-Link

Configuring the EPoC PHY(s)

- At the CLT
  - MDIO provides access to CLT PHY registers for configuration and status.
  - MDIO provides access to remote CNU PHY registers for configuration and status via the PHY Link Channel (with echo). D2
- At the CNU
  - MDIO provides access to CNU PHY registers for configuration and status.
  - PHY Link Channel provides CLT remote access to CNU PHY registers for configuration and status.
  - For simplicity, all CNU register pages could be accessible by both methods.
  - CNU does not have remote access to CLT PHY registers. D3

D2   I don't think Echo is the right term here. Reading back a register is not an Echo (unless your propossing the in order to read a register the CLT must write it, which I doubt).
D00725987, 2/5/2013

D3   This may be obvious but it doesn't hurt to be explicit.
D00725987, 2/5/2013

D7   Moved to location of origional slide on this topic.
D00725987, 2/5/2013

PHY-Link register

Straw Poll #10

- I think that the read/write capability of all/nearly all CNU PHY registers should be the same between the PHY-Link (from CLT) and MDIO (from CNU)

Yes   __4___
No, some _____
No, None __1___
Abstain   __ 3 ___