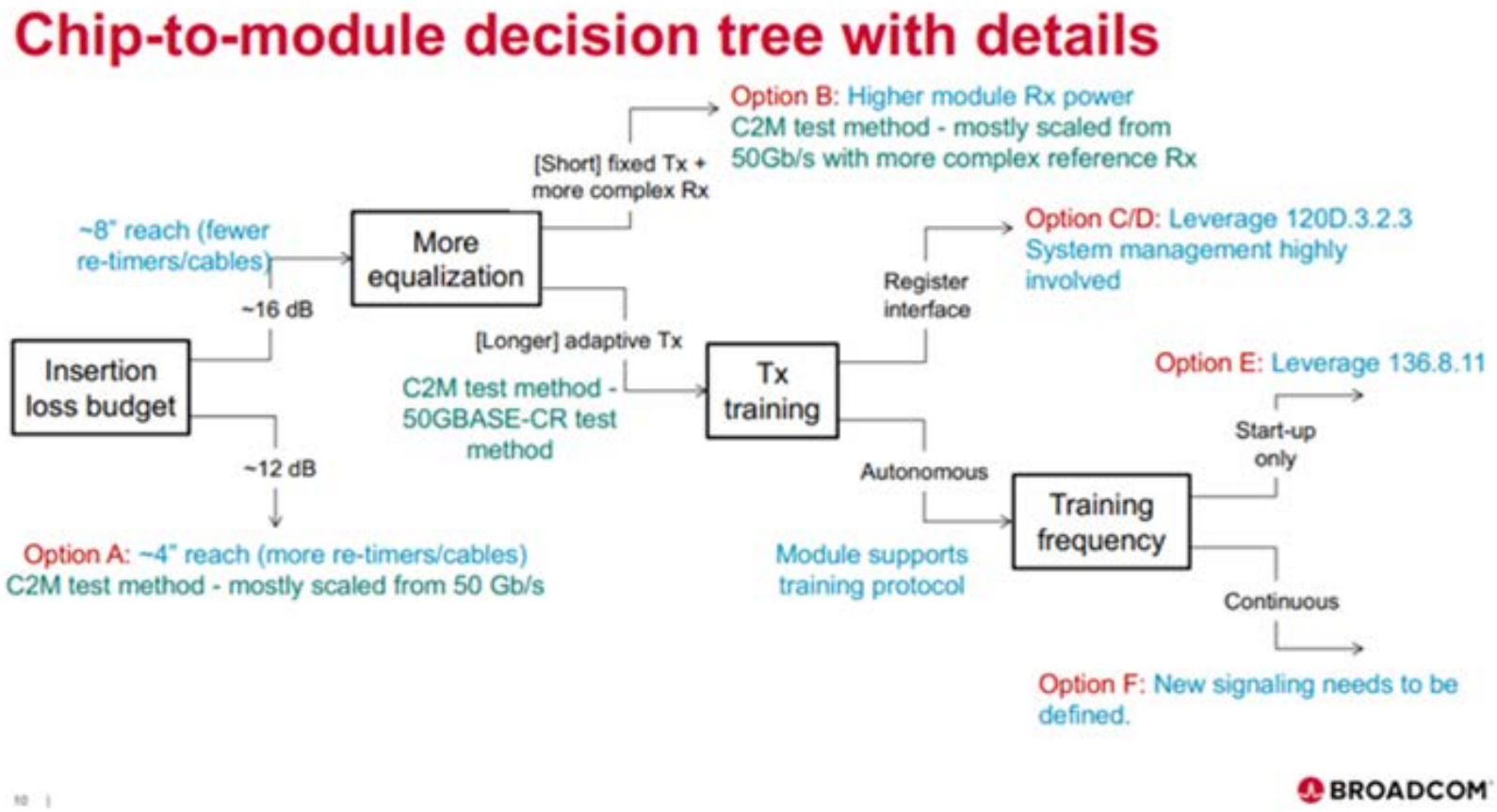
C2M Direction Check

Kent Lusted, Intel Corporation

Supporters

- Adam Healey, Broadcom
- Adee Ran, Intel
- David Piehler, Dell
- Ilya Lyubomirsky, Inphi
- Jeremy Stephens, Intel
- Joel Goergen, Cisco
- Jon Lewis, Dell
- Karthik Gopalakrishnan, Inphi
- Liav Ben-Artsi, Marvell
- Mike Dudek, Marvell
- Phil Sun, Credo
- Pirooz Tooyserkani, Cisco
- Upen Reddy Kareti, Cisco

C2M Decision Tree Results from Spokane



Straw Poll #1:
What should be the C2M channel loss?
(A) ~12dB
(B) ~16dB
(C) ~12 and ~16 dB, 2 AUIs with different losses
(D) More information needed
Pick one
A: 15 , B: 25 , C: 15 , D: 11
Room count: 93

Straw Poll #2:
I would support the C2M direction of
(A) slavick_3ck_02_0918 option A,
(B) slavick_3ck_02_0918 option B/C/D/E/F
(C) two AUI types
(D) More information needed
pick one
A: 14, B: 25, C: 5, D: 20

Straw poll #3:
If we go with 16dB, where should equalization be added?
(A) Fixed TX FFE and more complex RX (slavick_3ck… option B)
(B) Adaptive TX with some kind of link training (slavick_3ck… option C/D/E/F)
(C) More information needed
Pick one
A: 39, B: 11, C: 16

Post Spokane Interim Meeting Summary

- The results of Straw Polls #1-3 show that there is growing consensus to not pursue a C2M direction of Option C/D/E/F at this time.
- Therefore, focus is shifting to examine the feasibility of Option B as well as compare the merits of Option A vs. Option B.
- Based on feedback from participants, there are aspects of the C2M direction that need contributions:
  - COM parameters required to support the targeted C2M channels
  - RX performance sensitivity to equalizer settings (i.e. impact due to missing the best EQ by one or two steps.)
  - Analysis showing RX DFE tap weights where the error propagation effect becomes prominent
  - Channel property changes as a function of environmental effects (i.e. temperature, humidity, etc)
  - More measured channels from system vendors that represent the end-to-end path (TP0-TP1a), including “short” channels
  - System vendor feedback and alignment on critical channel priority
  - Power, complexity and relative cost comparisons of Option B vs. Option A
  - Power and complexity estimates of adding “in band” signaling to a module

November Update

- There is a small offline group working on these action items:
  - COM parameters required to support the targeted C2M channels
  - RX performance sensitivity to equalizer settings (i.e. impact due to missing the best EQ by one or two steps.)
- Currently running COM and checking parameter assumptions on contributed channels.
  - Assumed Annex 93A COM as the basis
- Expect an update with preliminary results in a forthcoming ad hoc meeting

Thanks!