

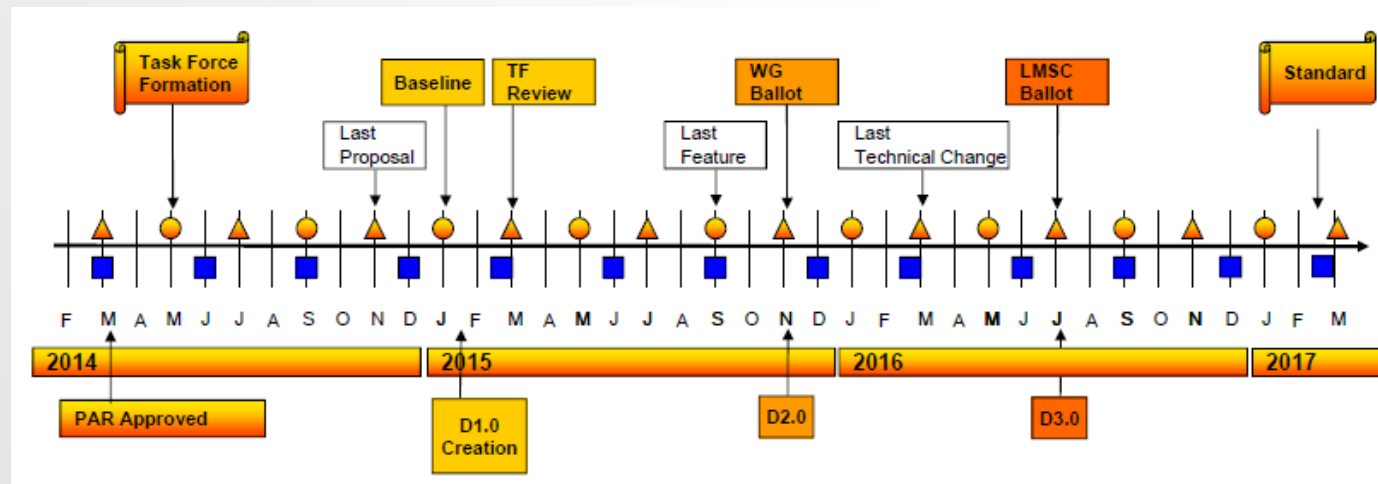


THOUGHTS ON BIG TICKET ITEMS

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TIMELINE AND TECHNOLOGY

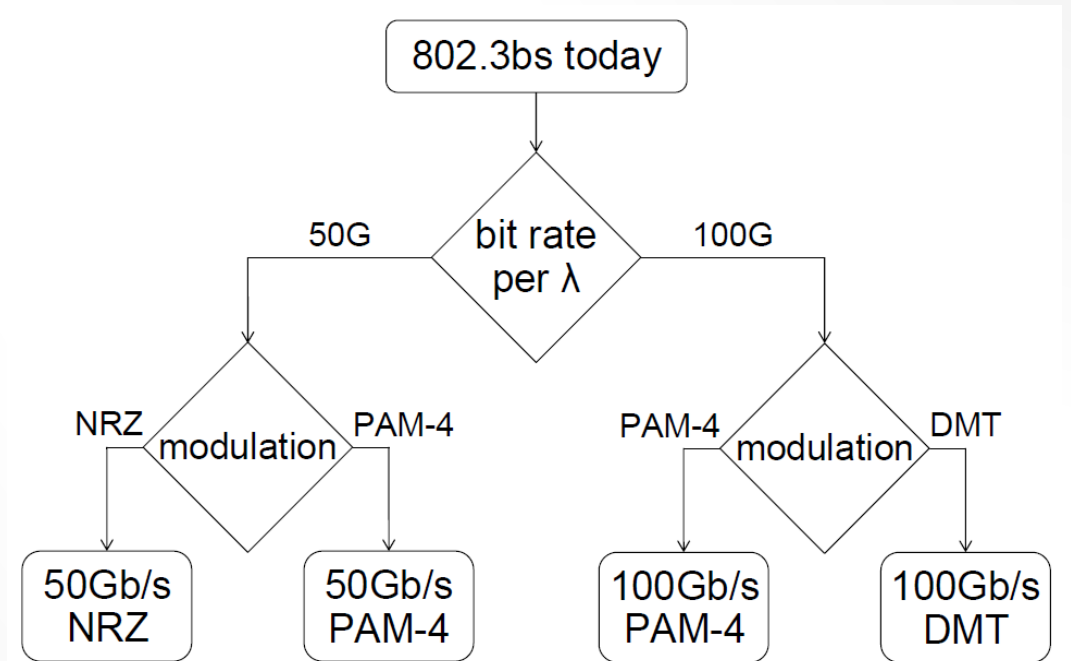
- Adopted timeline is no longer valid
 - Task Force review should have started after the March 2015 meeting
 - There will be a schedule hit: standard mid to 2nd half of 2017? Or later?
- Technology adoption
 - Original timeline matched with deployment projections
 - Standards compliant devices late 2017, early 2018
 - What will be the state of technology in 2018/2019?



DECISION TREE

- Assume all branches are technically viable
- Apply tree to each reach objective individually
- Are there branches in the tree that don't satisfy the 5C?
 - Reach impacts the 5C
- “The only wrong decision is to not make a decision.”

- [stassar_3bs_01b_0914.pdf](#)



CLOUD DATACENTER INTERCONNECT

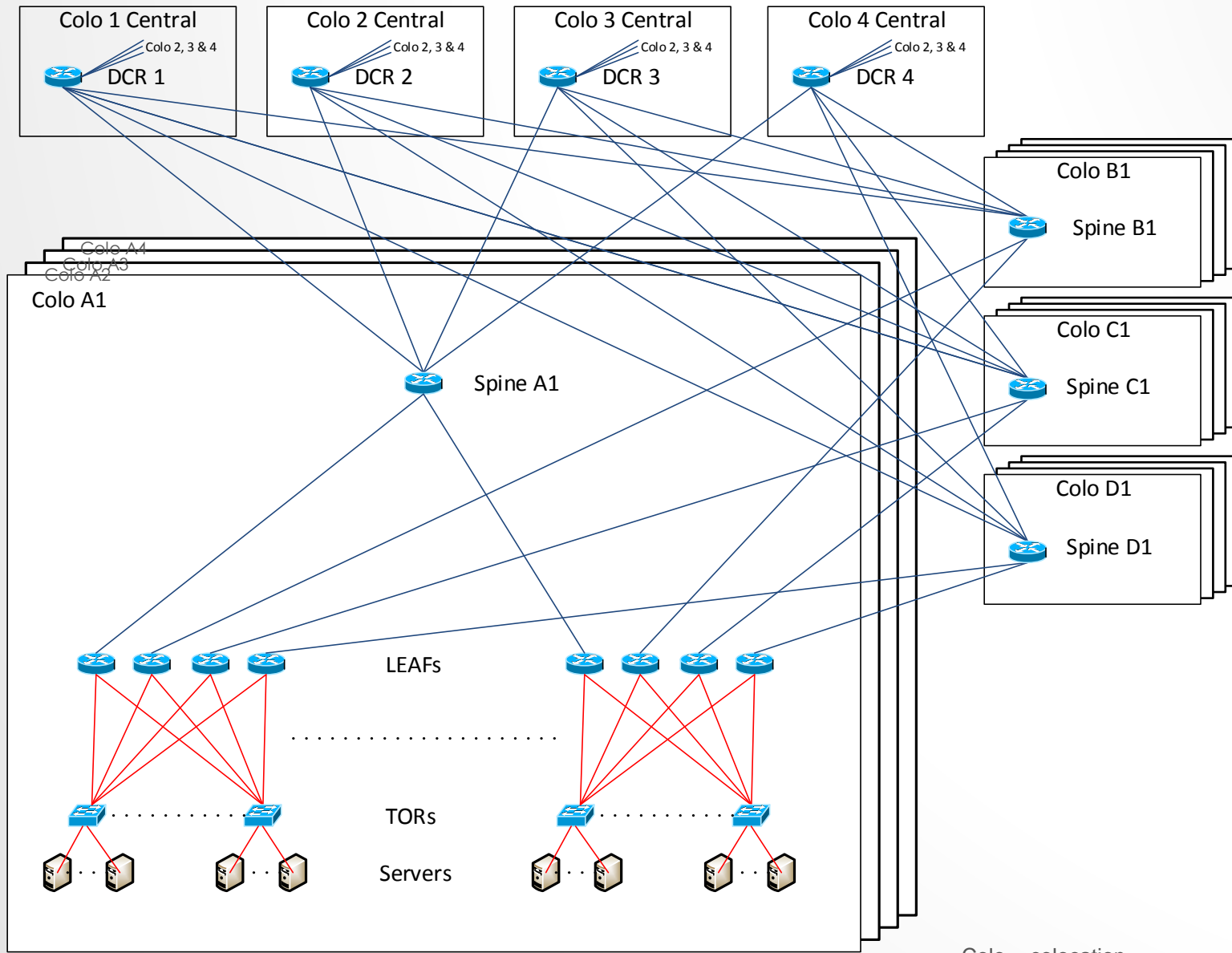
$\leq 10 - 80 \text{ km}$
 $> 100 \text{ km}$

$\leq 2,000 \text{ m}$

$\leq 500 \text{ m}$

$\leq 20 \text{ m}$

$\leq 3 \text{ m}$



P802.3bs

AOC

P802.3by

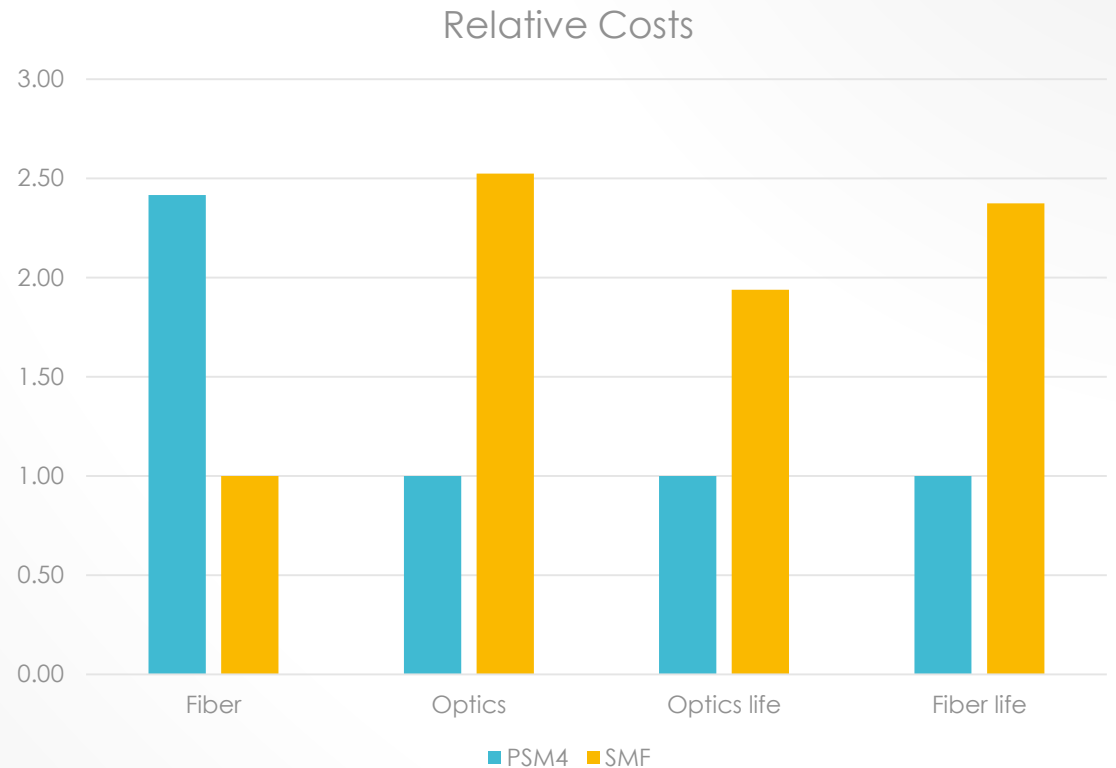
P802.3BS INTERCONNECT

A End	Z End	Reach (typ)	Volume	Channel IL (dB)	Possible Medium	Preferred Approach
LEAF	SPINE	500m	1k – 10k	3	PSM	PSM4
SPINE	DCR	2 km	100 – 1k	4	PSM/SMF	WDM
DCR	Metro	10 km	100 – 300	6	SMF	WDM
DCR	LH	>> 10 km	100 - 300	N/A	SMF	Not P802.3bs Objective

- P802.3bs currently has no specific objective for a reach greater than 10 km
 - Task force could consider creating a PMD for reaches beyond 10 km
 - Or, a CFI could be performed for a reach beyond 10 km

INFRASTRUCTURE RELATIVE COST

- Based on 100G
- 15 year life for fiber
 - No additional fiber is required over the 15 year life
- 3 year life for optics
 - Each generation of optics stays at the same cost
 - PSM4 optics vs. CWDM4/CLR4 optics



THOUGHTS

- Medium
 - PSM may be used up to 2 km
 - Duplex SMF will be used from 0 to 1000's of kms
- Reach objectives
 - While PSM4 could achieve 2 km, the 500 m reach is a good objective
 - 2 and 10 km are good duplex SMF objectives
 - Already have agreement that 10 km will be duplex SMF
- Differentiate the 2 km and 10 km
 - 10G was able to satisfy the market with 1 PHY
 - 100G has 5 MSAs vying for the 2 km market and a costly 10 km PHY
 - 400G should find a way to differentiate the technology
 - Number of wavelengths, modulation, baud rate, etc.

SUMMARY

- There are lots of viable technologies to consider
- Reach was used for target markets and applications
- Apply the decision tree for each reach objective
- Three SMF reach objectives \neq one PMD
 - The objectives provide the ability to differentiate solutions for the market
- Task Force has the ability to consider a PMD for a reach greater than 10 km

- Most importantly: don't miss the market due to indecision!