200G-DR2

Broad Market Potential

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IEEE 802.3 100 Gb/s Wavelength Short Reach PHYs Study Group

200G-DR2

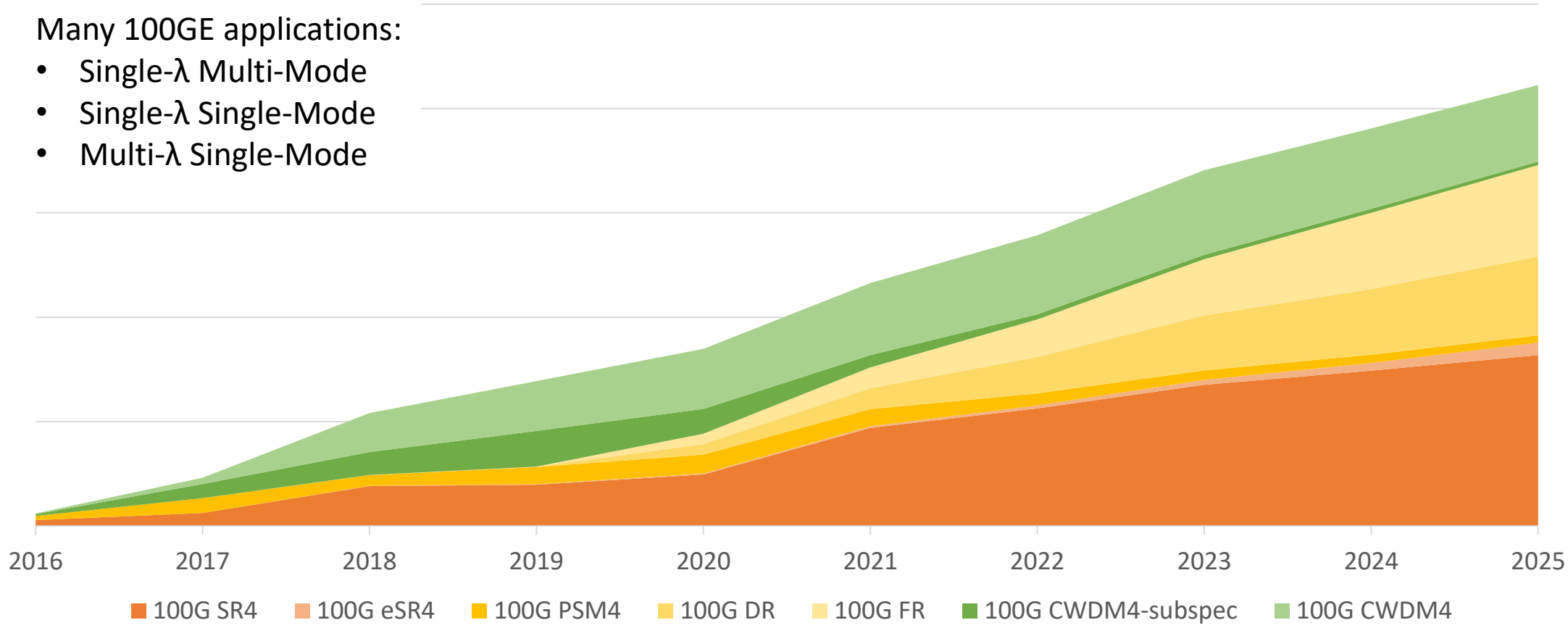
- (Relative) Market Sizes (≤ 2km)
  - 100G, 200G, 400G
- Potential Applications
  - TOR Uplinks
  - Server I/O

Data Courtesy of Lightcounting

100G Market Sizes

Many 100GE applications:

- Single-λ Multi-Mode
- Single-λ Single-Mode
- Multi-λ Single-Mode

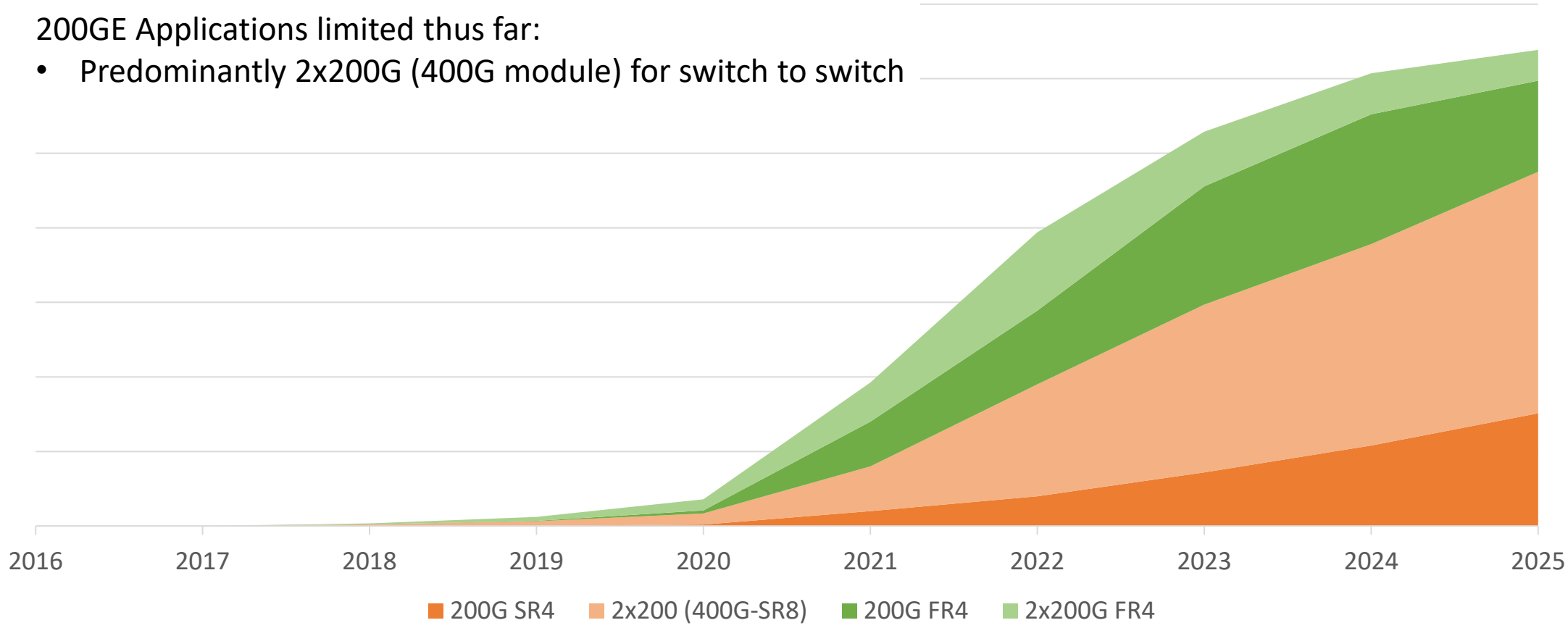


Data Courtesy of Lightcounting

200G Market Sizes

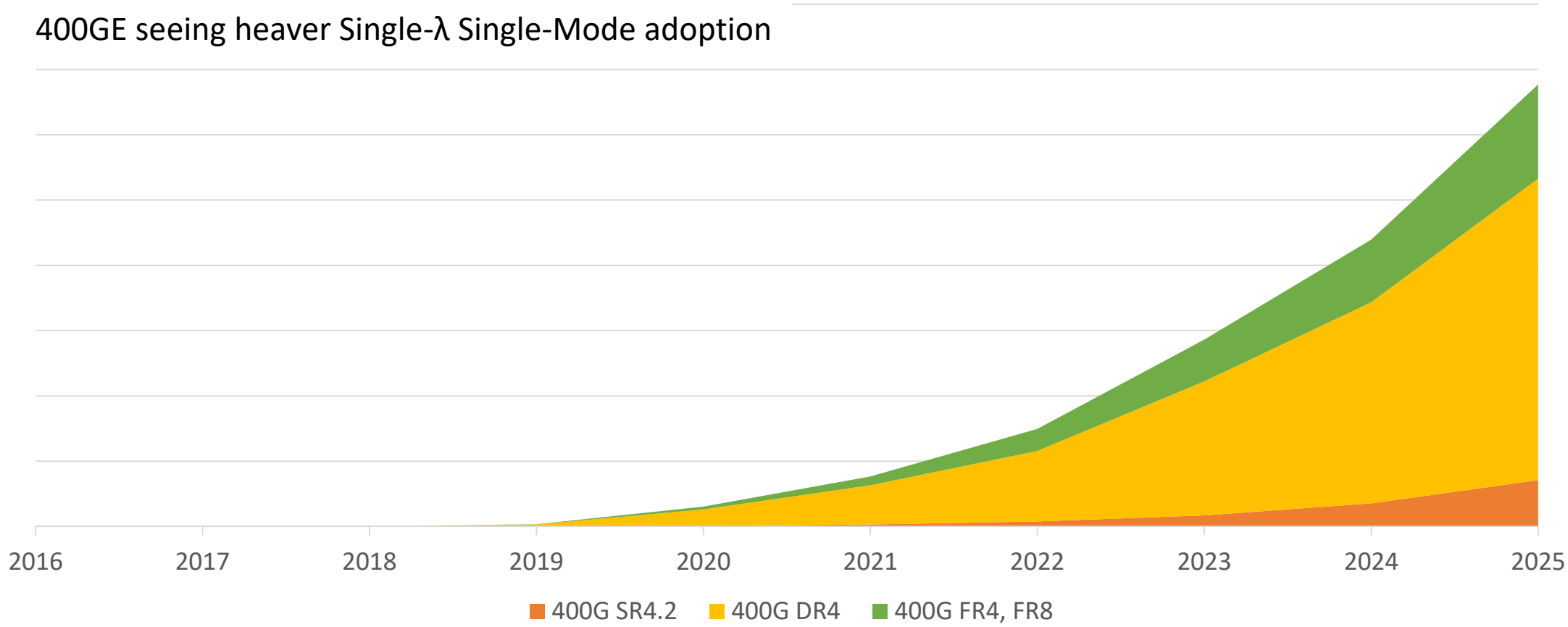
200GE Applications limited thus far:

- Predominantly 2x200G (400G module) for switch to switch



Data Courtesy of Lightcounting

400G Market Sizes



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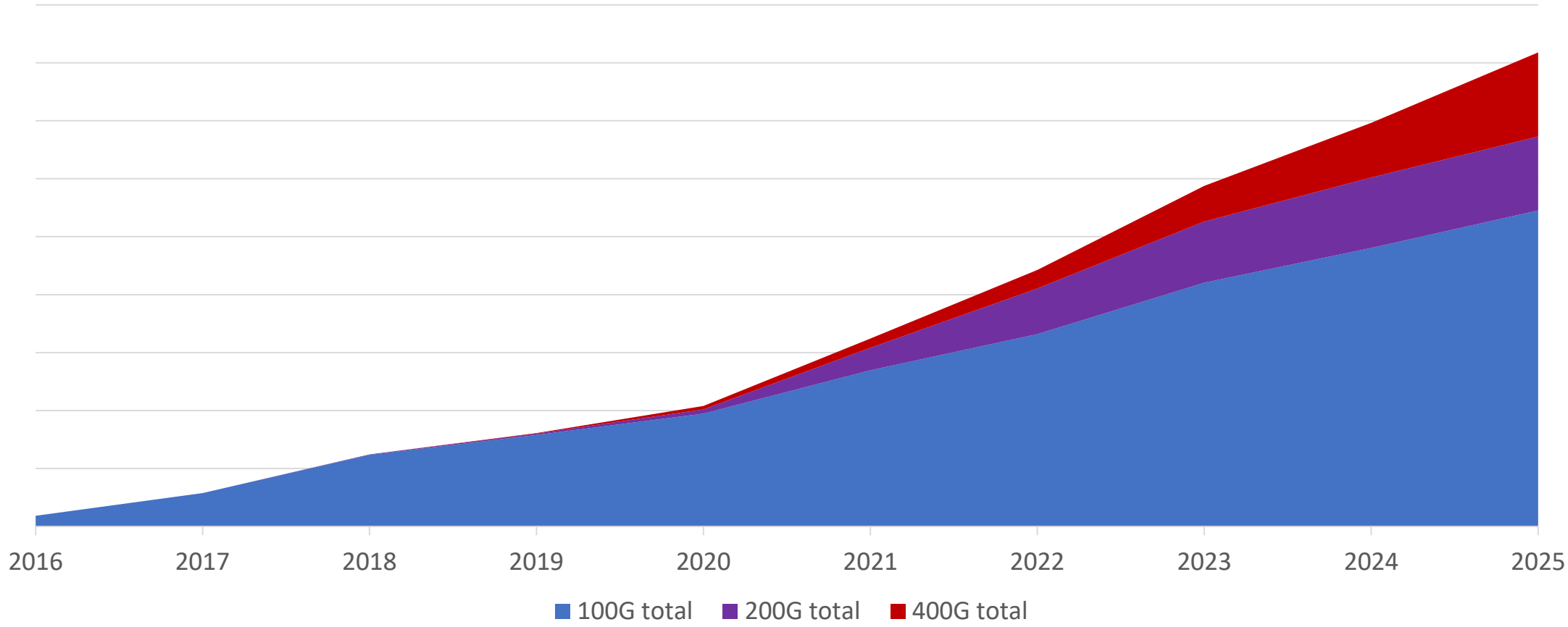
Ethernet Sizes (all reaches)



Potential 200G-DR2 Applications

- TOR Uplinks
  - Several contemporary DC architectures using a 3.2Tbps TOR to uplink to a 12.8T TIER1 switch
  - Interconnect is 100G-DR/FR at TOR (QSFP28) to 400G-DR4/DR4+ breakout (QSFP-DD) at TIER1 switch
  - Next generation may move to 6.4Tbps TOR, favoring a 200GE port
  - Potential application is 1x200GE or 2x200GE TOR uplink to TIER1 switch (with 400G-DR4 breakout)
  - 200GE provides more radix options
- Server Uplinks
  - 200GE NICs may favor TOR free architecture, with 200G-DR2 uplink directly to the TIER1 switch