

Big trends in Optics



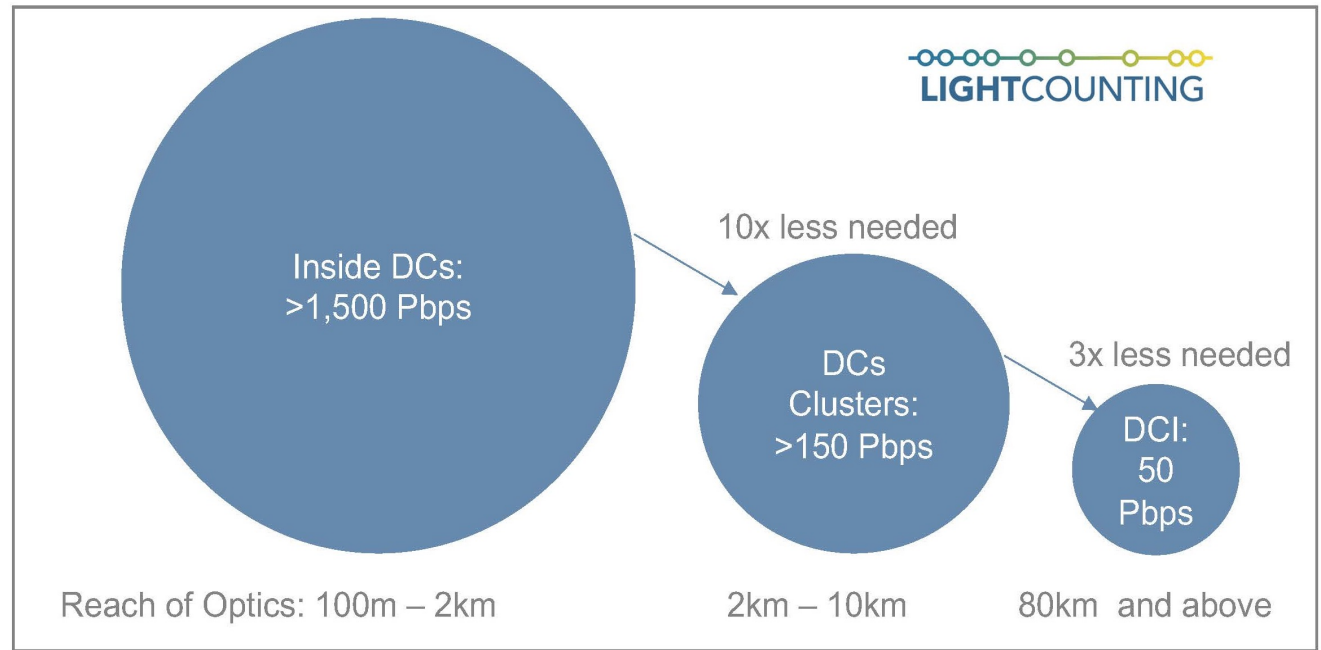
Yung Son
Optomind Inc.

Sept 14, 2022



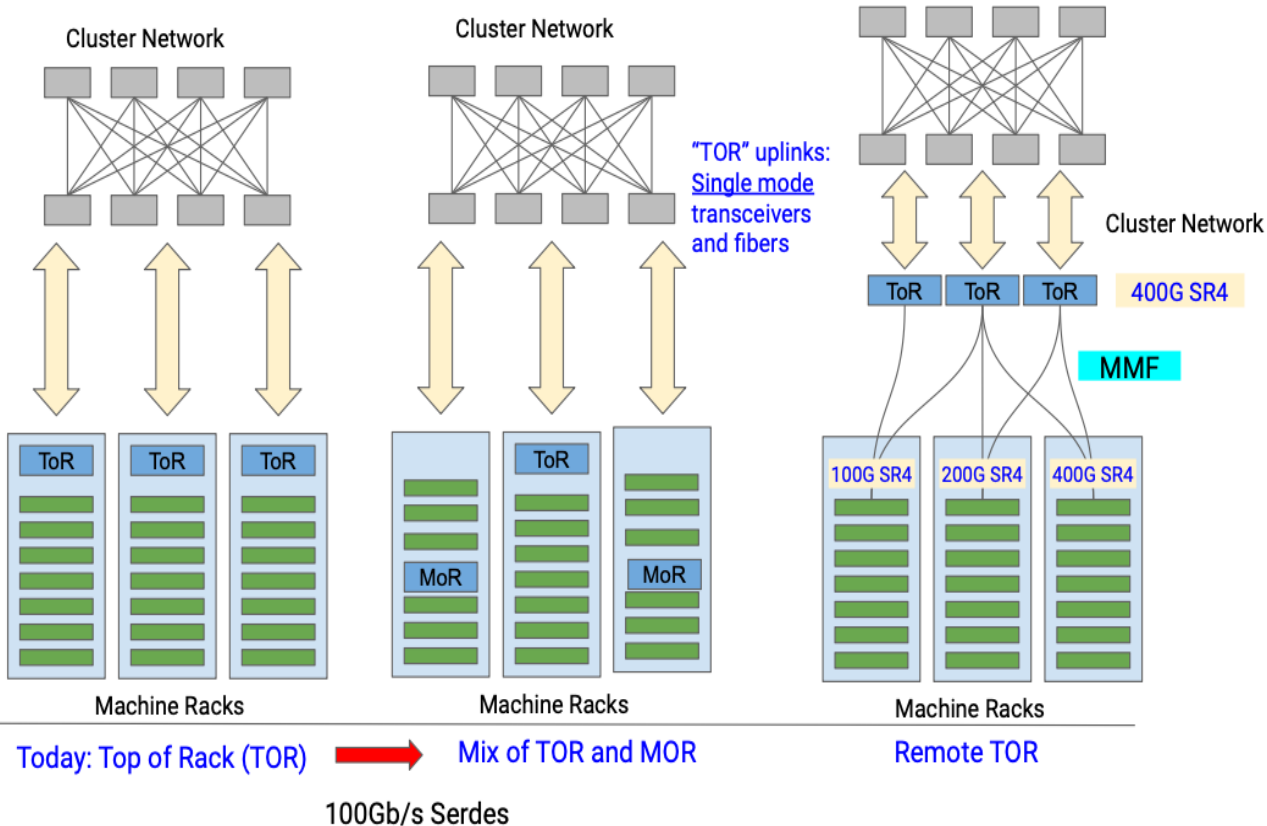
AOC and SR Optics will occupy ToR, EoR, MoR for data rate at 400G, 800G and beyond

More bandwidth is needed within 100m



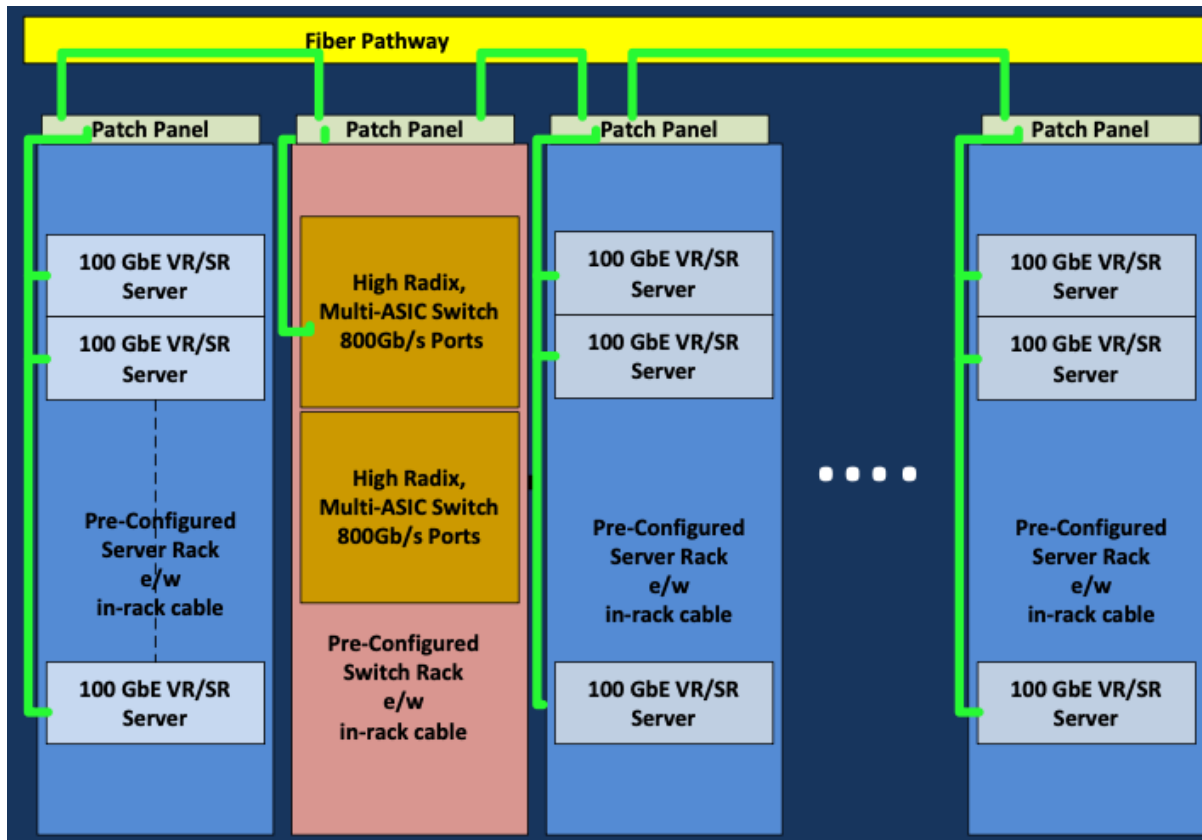
Source: LightCounting Mega Datacenter Optics Report

400G SR4 over 50m OM4 MMF: Paradigm shift from copper to fiber at 100Gbps/ch



At 100Gbps per lane

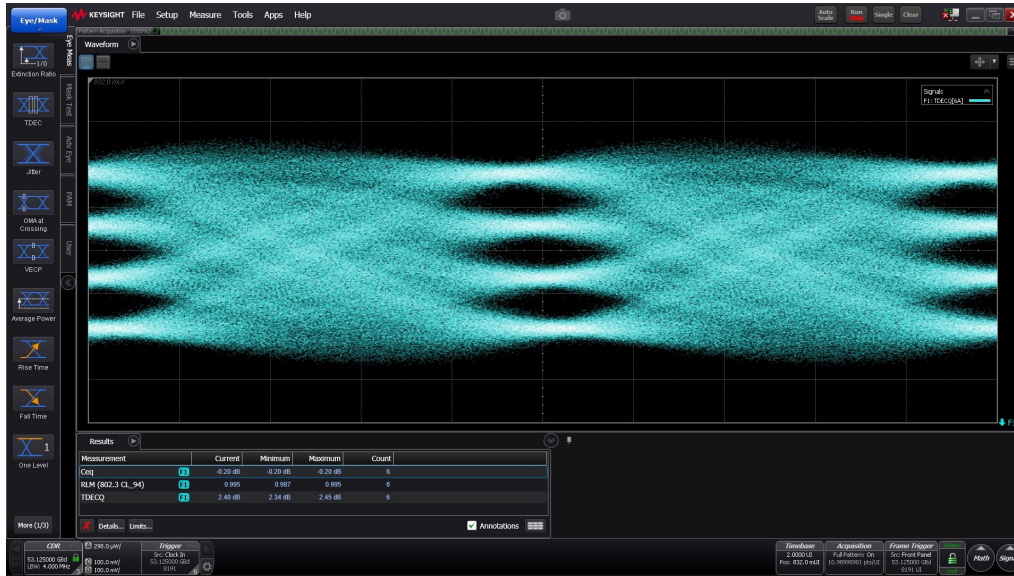
- DAC reach <2m
- Optics reach enabling optimal network structure
- 50m reach (VCSEL) is optimal in
 - Performance
 - Cost
 - Power consumption
 - Lower latency
- Additional benefit of Optics
 - Utilizing all switching port to connect
 - Space saving in high port density
 - Improving air flow convection



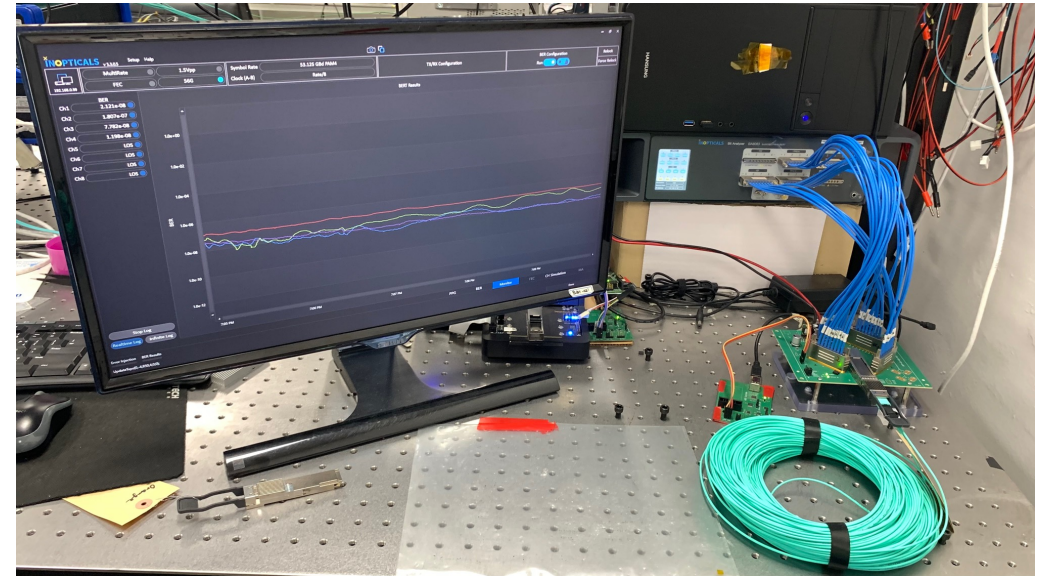
- Cable attached transceiver (CAT)
 - OSFP, QSFP-DD
 - QSFP
 - SFP



Source: Networking Speeds Beyond 100G, Cabling Installation & Maintenance Webcast Seminar, Sept 8, 2022



Solid optical eye at 106Gbps



Stable BER performance with 100m OM3 fiber link