

MACOMTM

Partners in RF & Microwave



Data center architectures for 100G-Base-FR

Tom Palkert –Macom
palkert_3cd_01_0716

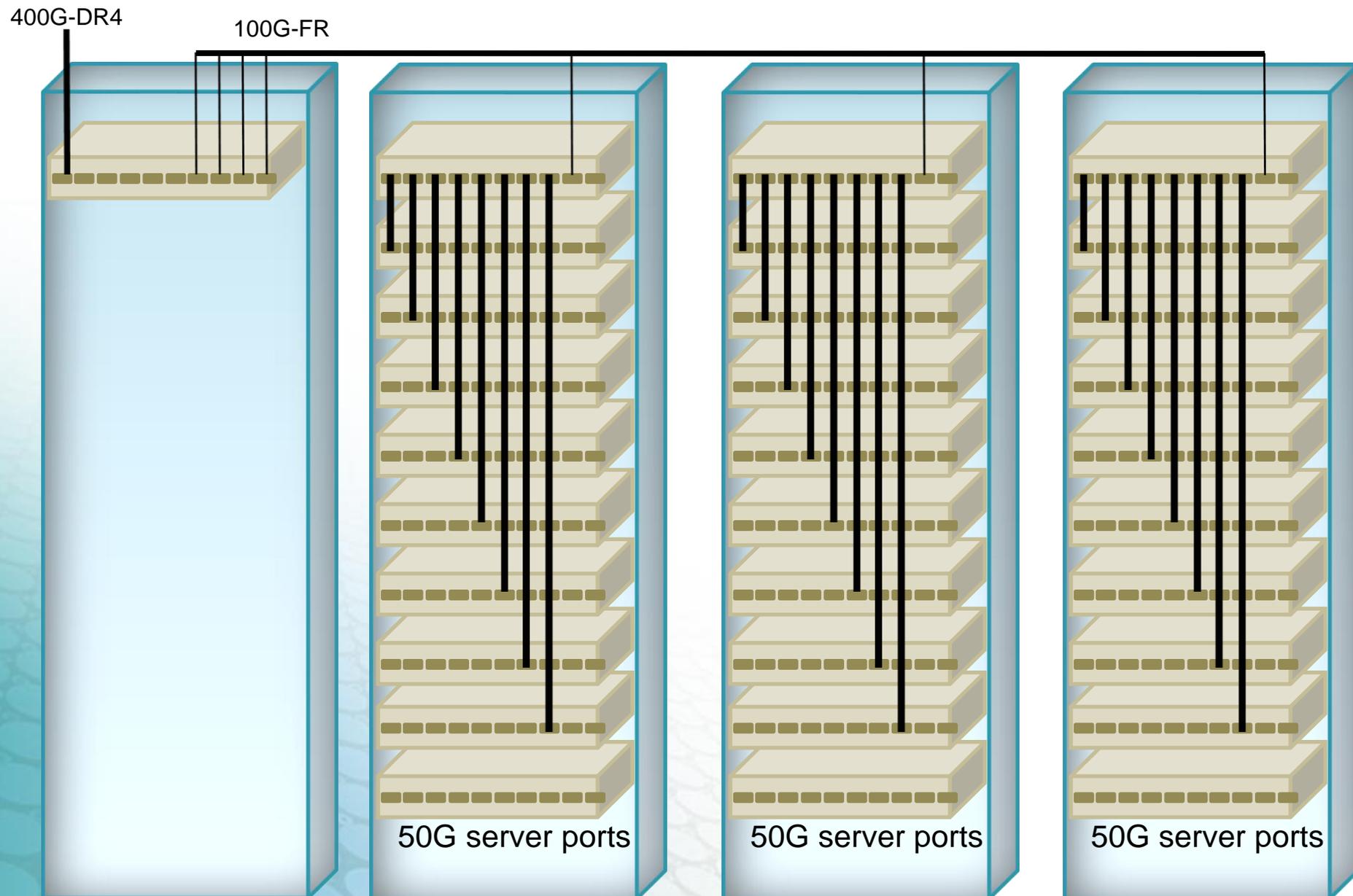
Outline

- Objective
- Applications for 100G-FR in data centers
- The need for breakout of 400G to 4x100G.
- Conclusions

Objective

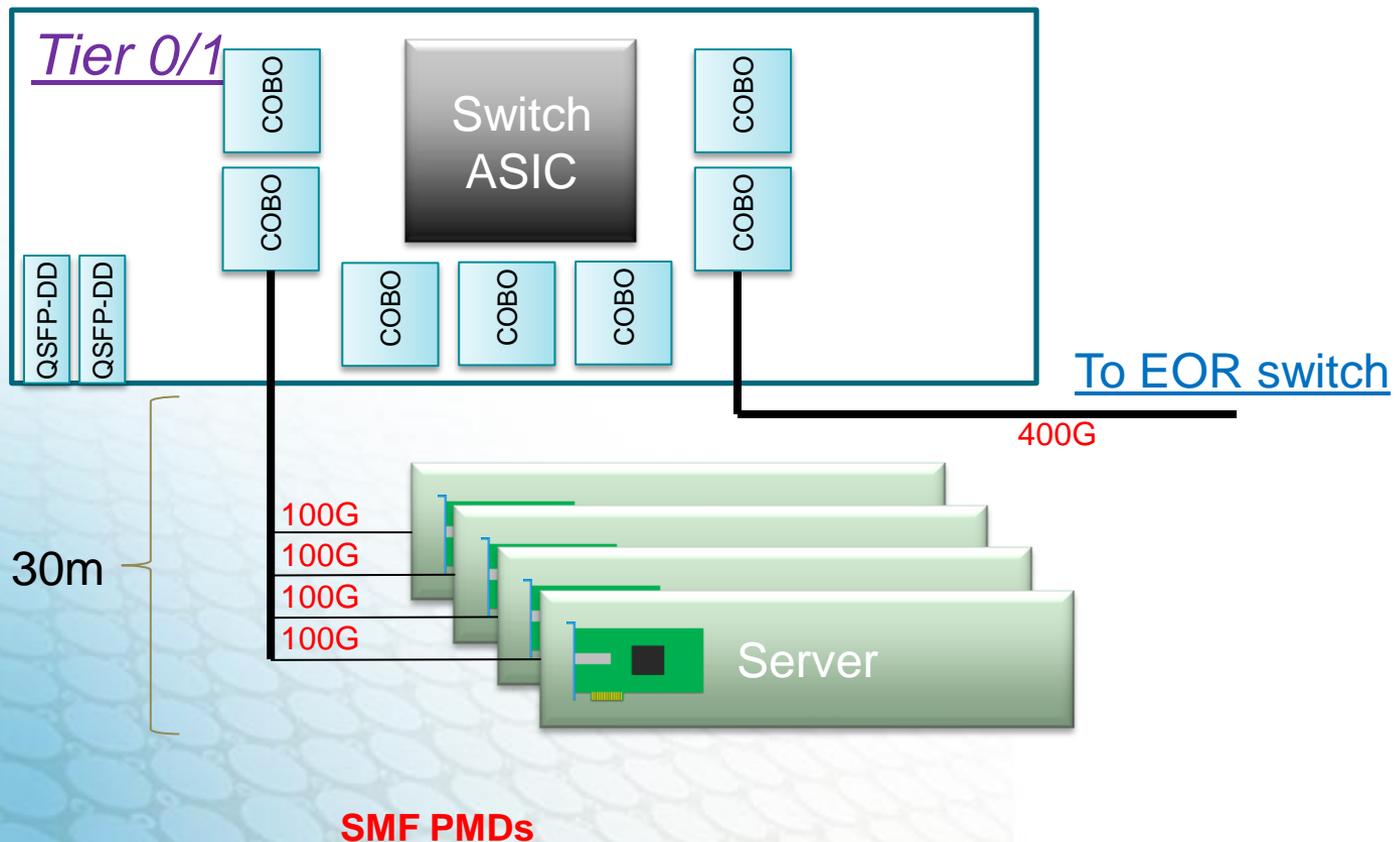
- Define a 100 Gb/s PHY for operation over SMF with lengths up to at least 2 km

First Generation 100G-FR application: Switch to switch interconnects

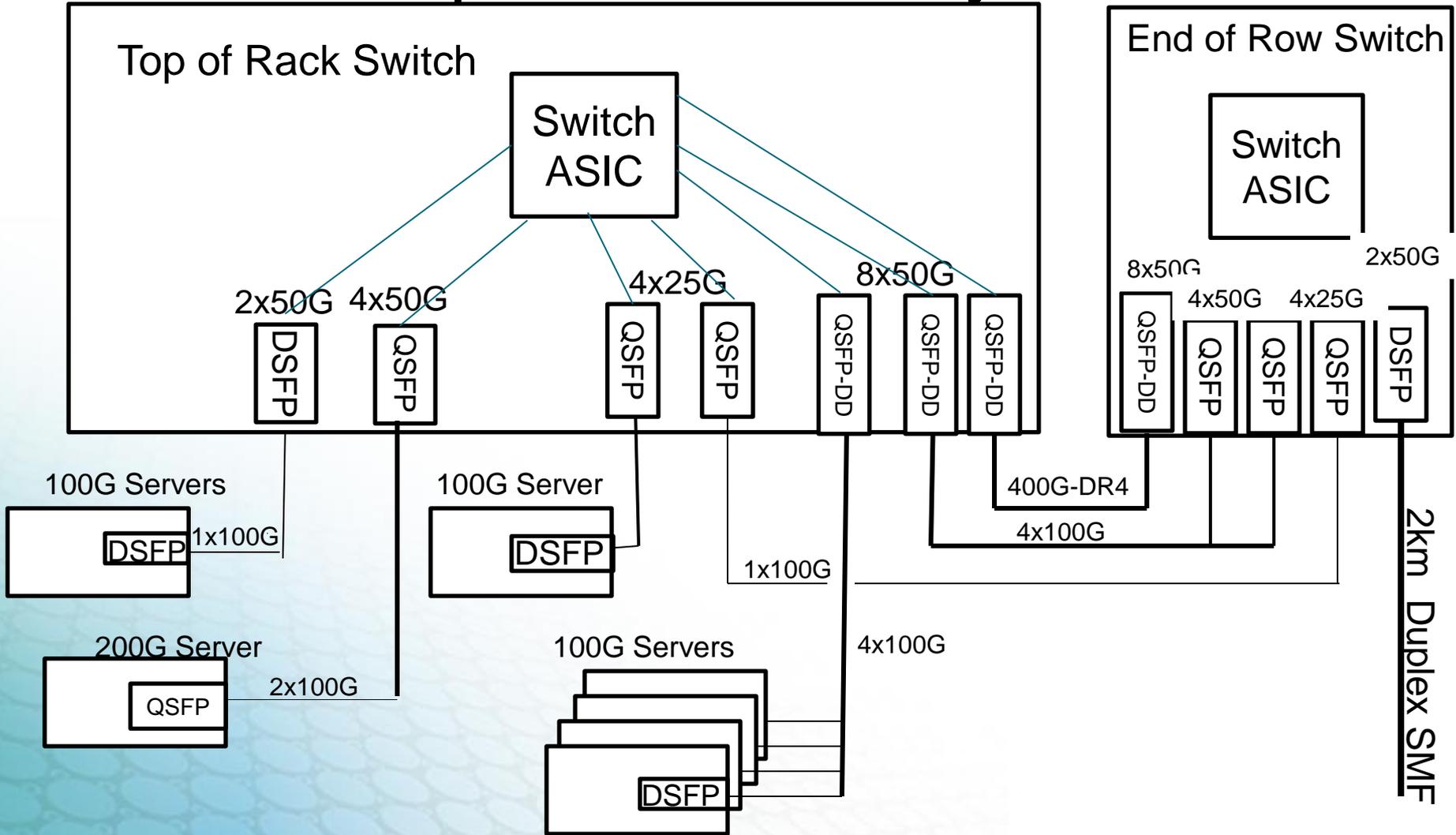


Second generation: On board optics to server

- Serial 100G to server using OBO would benefit from 100G serial SMF to maximize port density and simplify network design
 - Ports can be defined to be 400G-DR4 or 100G-FR



Breakout options summary



400G-DR4 in QSFP-DD (CDAUI-8 electrical) to  100G-FR in DSFP (CAUI-2 electrical)



Conclusion

- Serial 100G FR applications need a standardized solution
- Broadest market potential will be achieved with 400G-DR4 compatibility