Data center optics: Multimode vs singlemode

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Data centers are getting bigger

*Is this the end of MMF interfaces?*

Mega data centers are driving a transition to SMF for 40G and 100G interfaces...

But there are still plenty of traditional data centers out there!
Standard interfaces for Ethernet optics

**Gaps and requirements:**
Cost is too high!

Cost-effective SMF & longer-reach MMF interfaces needed

Duplex vs MTP MMF interfaces needed
Filling the gap with new solutions

The industry responds with novel solutions for reach…
…and for connector.

- Duplex
- MTP
- CWDM4 (duplex)
- eSR4
- Bidi
- PSM4
- eSR4
- Bidi?
So is this the end of MMF as we move to 100G and beyond?

Not yet, but there is a trend towards SMF especially in large data centers.

In the end, it comes down to the COST and APPLICATION:

For large data centers, the industry is developing a host of cost-effective SMF as well as extended reach MMF options.

For traditional data centers, the industry is addressing the MMF need with duplex-fiber solutions.

But as we scale to 400G, new innovations in both MMF and SMF solutions are needed.
Thank you