



# Next Gen 10X10 Module Discussions

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10X10 MSA Chair



- **Agenda**

- 1:30 – Introductions and greetings – Scott Kipp of Brocade
- 1:45 – 100GbE for Warehouse Scale Computing - Bikash Koley of Google
- 2:15 – Requirements for Next Generation 10x10 Modules – Scott Kipp of Brocade
- 2:45 – Proposed Module Concepts – David Lewis of JDSU
- 3:15 – Open Discussion
- 3:55 – Next Steps and Adjournment
  
- 4:30 – You’re all invited to the SportsPage patio located at 1431 Plymouth Street, Mountain View, CA. It’s right on the corner Plymouth Street and N Shoreline Blvd.



## High Density 10X10 Scope

- 100G over 2Km SMF
- Backward Compatible
  - Centered at 1550nm
  - 8nm spacing
- Max power 6W
- Support OTN rate
- Support for longer reach optional



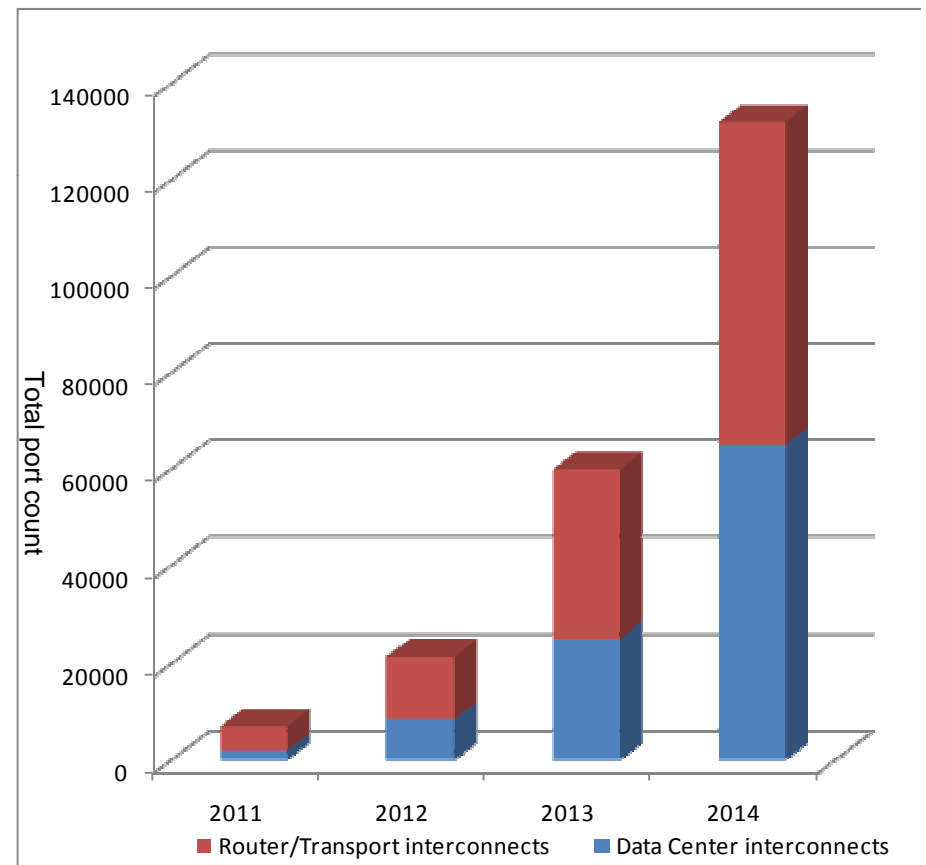
## Feedback from December call

- Power density and cost are highest priorities
- Application ranging from 4-12 modules per faceplate discussed
- Drop-in compatible with SW desirable
  - Thermal and signal integrity challenges remain
  - Extended length inside face-plate, change in pin-out discussed as alternative
- Max case temperature 0-70 deg C
  - Some require 85 deg C
- Smaller form factor like QSFP more attractive



## Estimated Target Market Size

- Broad market requirements
- 2Km Reach
- Low cost
- Available now
- Architecture based on 10G components
  - Aligning ASIC I/O rates with optics
  - Mature, Cost effective ecosystem
- Cost parity with 10G modules in 2012
  - Broader market
  - Accelerated adoption





# Open Discussion

- **What are the requirements for the next gen 10x10 module?**
  - **What port density is needed?**
    - Is 12 per 1U server enough?
  - **Is 6W enough power?**
  - **Is 2W/sq inch the maximum power density?**



# Open Discussion

- **What is the market forecast for the product?**
  - No 100GbE server interfaces until 2018
  - Aren't people planning to go to CFP2 instead of Next Gen 10x10?
- **What is the timeframe for this project?**
  - Form new MSA by March – new operating agreement
  - Finish proposals - May
  - Finalize document- June
  - Release standard – August
- **Who wants to meet again?**
  - When and where?