



Beyond 10 Gigabit Ethernet

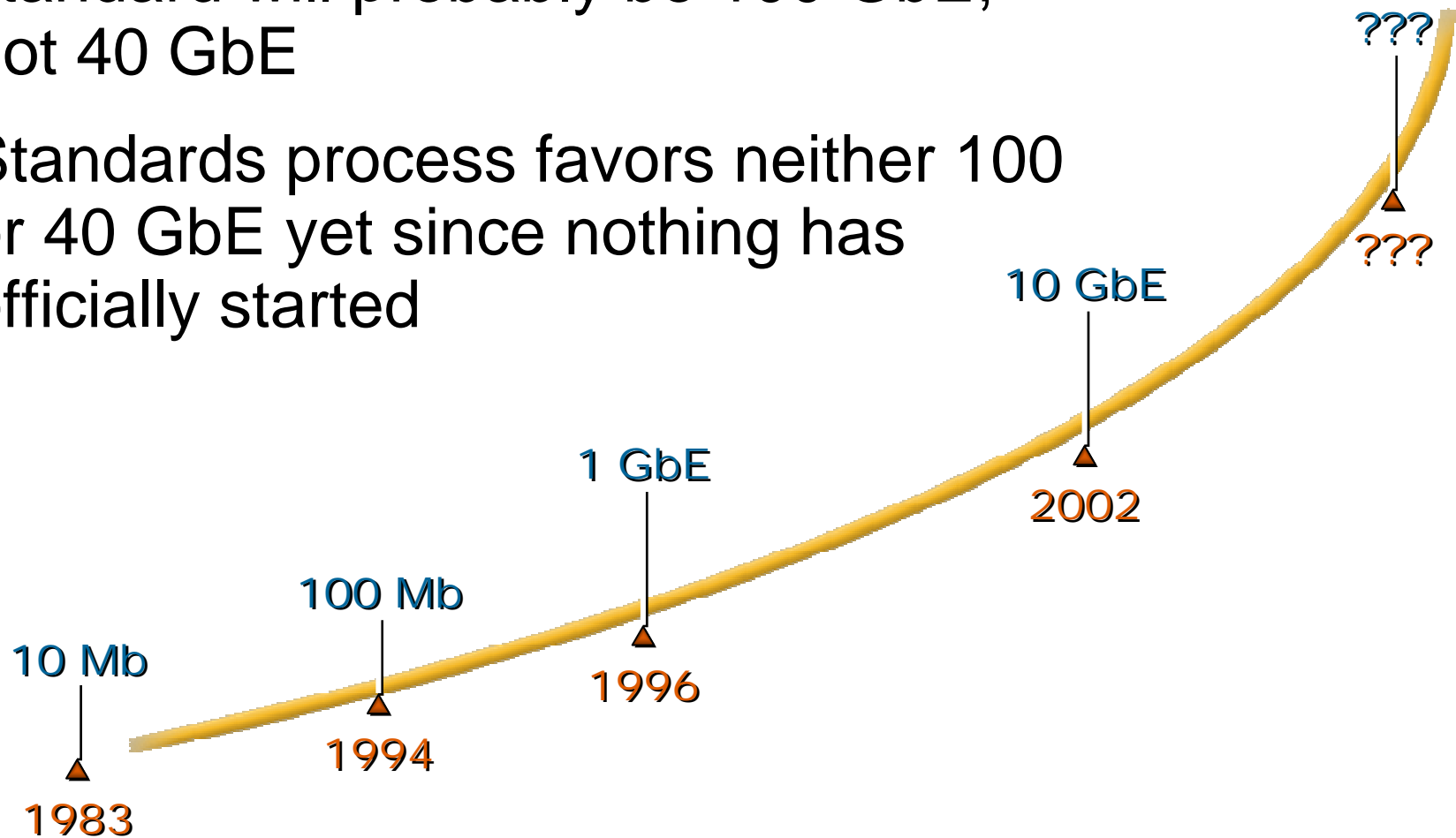
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Agenda

- 40 GbE vs 100 GbE
- The IEEE Standards Process

40 GbE or 100 GbE?

- History demonstrates the next IEEE standard will probably be 100 GbE, not 40 GbE
- Standards process favors neither 100 or 40 GbE yet since nothing has officially started



40 GbE Pros & Cons

■ Pros

- 40 GbE is the logical next step leveraging SONET / SDH OC-768
- 40 GbE can leverage OIF efforts underway to standardize OC768 interfaces
- Packet processing is achievable with 90 nm process technology

■ Cons

- Not a significant enough performance improvement to warrant the cost of development/adoption

100 GbE Pros & Cons

■ Pros

- Next logical step in Ethernet
- For system vendors, the development cost of 100 GbE would be marginally higher than 40 GbE, if the fundamental infrastructures are already in place in the system, but deliver a much higher benefit
- Easier to get to selling price goal for technology to get to mass adoption
 - GbE - \$500/port
 - 10GbE - \$2.5K/port
 - 40GbE - \$4.5K/port
 - 100GbE - \$10K/port

100 GbE Pros & Cons

■ Cons

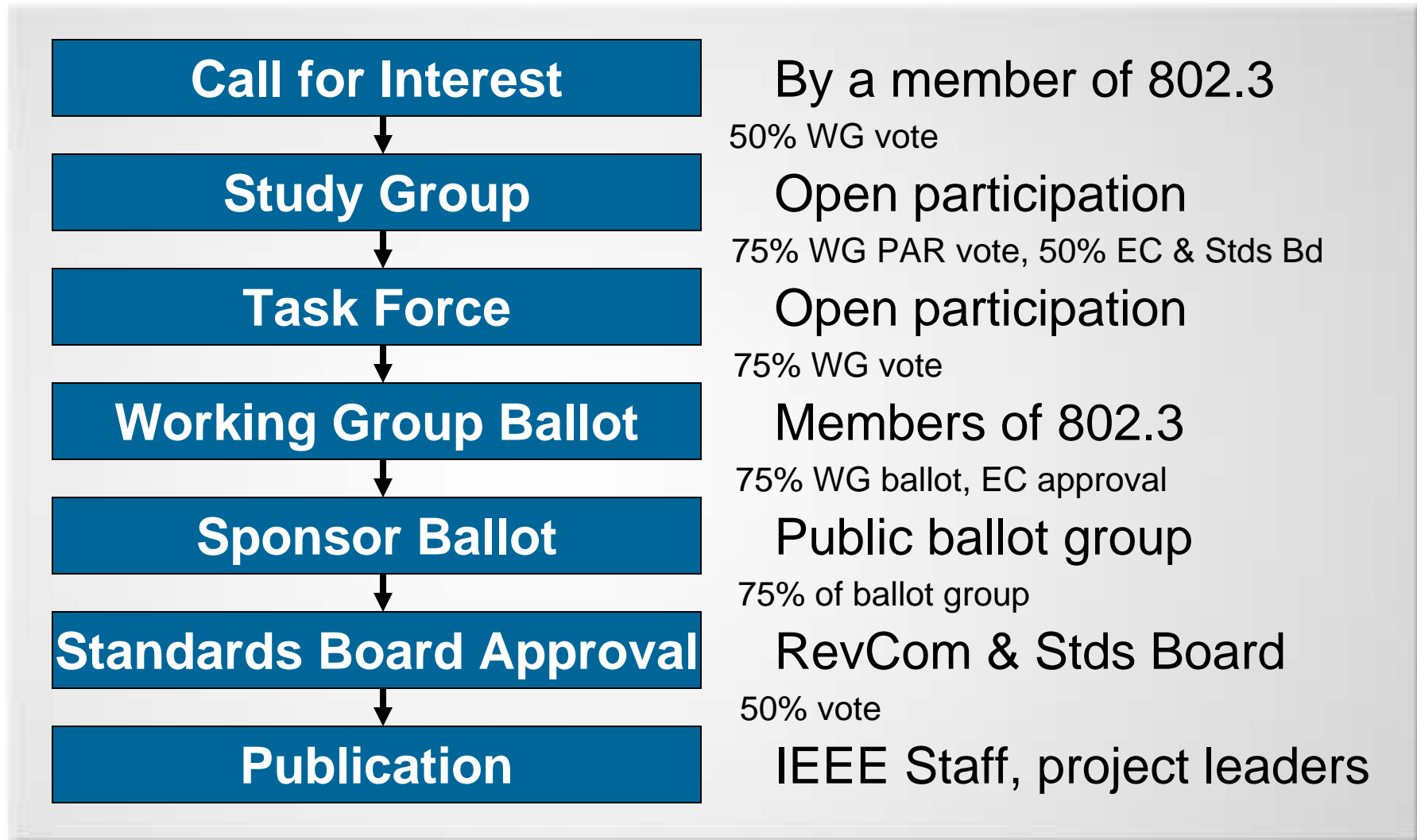
- Need to use bleeding edge silicon technology
- Lots of work need to happen in the front end optical technology
- Optimizing 10 GbE pricing with the same chip sets would be difficult

Agenda

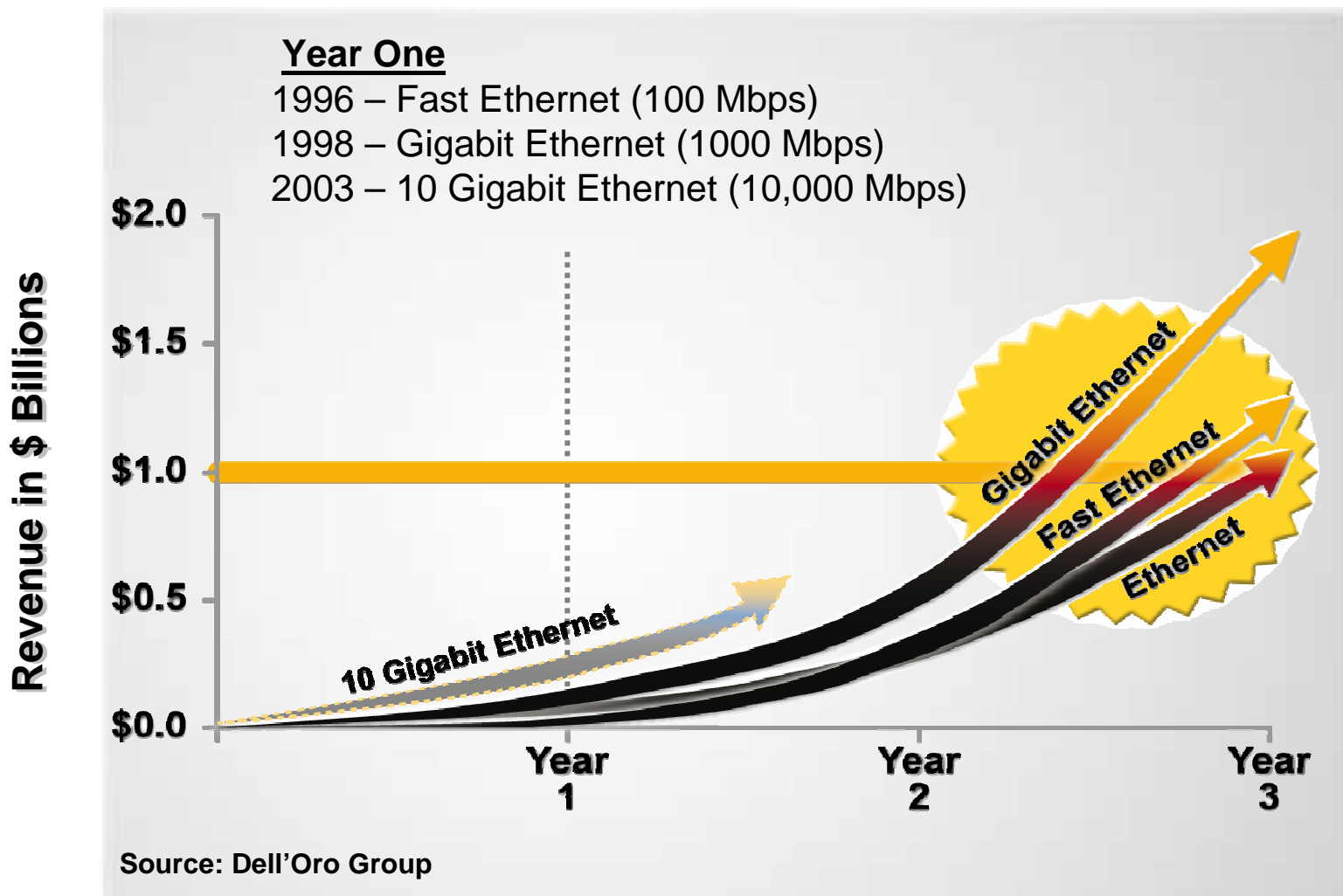
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Standards Process:

P802.3ah – Nov 2000 / Sept 2004



Mass Adoption Will Probably Happen in 2013



What You Can Do

- We need your involvement to start momentum and demand *now*
 - Or else we will only have 10 GbE for several years
- Start talking to your equipment vendors
 - Switching/routing
 - Transport
- Get involved in the IEEE

Thank You

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