

Broad Market Potential (1 of 2)

- Broad sets of applications
 - Multiple vendors and numerous users
 - Balanced cost (LAN versus attached stations)
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- **Bandwidth requirements for computing and core networking applications are growing at different rates, which necessitates the definition of two distinct data rates for the next generation of Ethernet networks in order to address these applications:**
 - Servers, high performance computing clusters, blade servers, storage area networks and network attached storage all currently make use of 1G and 10G Ethernet, with significant growth of 10G projected in '07 and '08. I/O bandwidth projections for server and computing applications, [including server traffic aggregation](#), indicate that there will be a significant market potential for a 40 Gb/s Ethernet interface.
 - Core networking applications have demonstrated the need for bandwidth beyond existing capabilities and the projected bandwidth requirements for computing applications. Switching, routing, and aggregation in data centers, internet exchanges and service provider peering points, and high bandwidth applications, such as video on demand and high performance computing environments, have demonstrated the need for a 100 Gb/s Ethernet interface.

Economic Feasibility

- Known cost factors, reliable data
 - Reasonable cost for performance
 - Consideration of installation costs
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- The cost factors for Ethernet components and systems are well known. The proposed project may introduce new cost factors which can be quantified.
- Presentations indicate that for the server market and computing applications, [including server traffic aggregation](#), the optimized rate to provide the best balance of performance and cost is 40 Gb/s. For the network aggregation market and core networking applications, the optimized rate offering the best balance of performance and cost is 100 Gb/s.
- In consideration of installation costs, the project is expected to use proven and familiar media, including optical fiber, backplanes, and copper cabling technology.
- Network design, installation and maintenance costs are minimized by preserving network architecture, management, and software.

IEEE P802.3ba Five criteria change

- The LMSC Executive Committee approves the change to the IEEE P802.3ba Five Criteria document

M: D Law, S:

Y: ??, N: ??, A: ??

Working Group vote

Passed by voice vote without opposition