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# Congestion Management in Ethernet - Background

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# Ethernet as interconnect

## ■ Strengths

- The fastest standards-based interconnect in the industry
- Price/performance/ubiquity of Ethernet
- Can match the latency of any known popular interconnects
  - Very important for latency-sensitive applications
  - Switches at 450ns latency available today and going to < 300ns soon
- Proven interoperability
- Low-cost standardized Phy-layer technology suitable for backplanes

## ■ Weakness

- No delivery guarantees
- Not jitter free
- Lacks Carrier grade QOS capability
  - High grade of QOS is now being requested by Data Center, Telecom (ATCA, MicroTCA ) and HPC applications
  - 802.1p can provide some help but needs more capability for converged traffic
  - Congestion management is a key

## ■ Threats

- Serial Rapid-IO
- Infiniband
- PICMG-3.6 Cell Switching specifications
- ASI

**To broaden and sustain the Ethernet Market, Congestion Management is a must !**