

HSSG Next Steps Proposal

IEEE 802.3 Higher Speed Study Group

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100GE Broad Market Potential

- There is a Broad Market Potential for 100GE for Aggregation
- The core is saturated
- Data centers are choked
- If we don't get it soon, everyone will be negatively impacted
- When deployed, large percentage of Internet data traffic will go over it
- 100GE port volume is not a good measure of Broad Market potential
- It is critically needed for 10GE server port aggregation
- It is critically needed for 10GE server ports to ship in volume
- It is critical to move forward with 100GE in a focused manner
- Aggregation Industry has clearly stated that simultaneous adoption of 100GE / 40GE will negatively impact the development and adoption of 100GE.
- Aggregation Industry has clearly stated that staggered adoption of 100GE standard followed by a 40GE standard allows them to manage the negative effects of two new MAC rates in the market.
- We all need for 100GE to succeed!

40GE Broad Market Potential

- 2006: Narrow Market Potential for Server 10GE
 - Early adopters (ex. HPC)
 - Start of server-port modest-volume ramp
- 2009: Broad Market Potential for Server 10GE
 - Mass adopters (ex. internet data center operators)
 - Start of server-port high-volume ramp

- 2009: Narrow Market Potential for Server 40GE
 - Early adopters
 - Start of server-port modest-volume ramp
- **2012: Broad Market Potential for Server 40GE**
 - **Mass adopters**
 - **Start of server-port high-volume ramp**

- 2015: Narrow Market Potential for Server 100GE
 - Early adopters
 - Start of server-port modest-volume ramp
- 2018: Broad Market Potential for Server 100GE
 - Mass adopters
 - Start of server-port high-volume ramp

HSSG Dynamic

- 40GE proponents representing Access Narrow Market Potential companies
 - Need 40GE ASAP
 - Need 40GE for leading edge servers and switches
 - It is reasonable and understandable why they argue strongly in favor of urgently moving forward with 40GE standard
 - Critically need 100GE for success of 40GE in their Market
- 40GE proponents representing Access Broad Market Potential companies
 - Do not need 40G ASAP
 - Need 40GE for mass market, high volume servers and switches
 - Today only need certainty that there will be a 40GE standard
 - Have different cost/performance needs than 40GE Narrow Market Potential companies
 - Due to HSSG dynamic to date have been driven by a concern (fear?) that 40GE will be blocked as a standard, and have backed immediately moving forward with 40GE standard for HSSG tactical reasons.
 - Critically need 100GE for success of 40GE in their Market
- 100GE proponents representing Aggregation Broad Market Potential companies
 - Critically need to move the 100GE standard forward
 - Due to HSSG dynamic to date have been driven by a concern that 40GE proponents will block adoption of 100GE.

HSSG Next Steps Proposal

- Focus on the best approach for how to adopt 40GE and 100GE standards.
- Move forward with 100GE as PAR A MAC data rate, and start developing 100GE standard ASAP.
- Move forward with 40GE as CFI, and start developing 40GE standard later.
- Do not delay moving forward with a 100GE PAR A (This does not serve anyone's interest)
- Move forward with a 40G standard following the 100GE standard (This serves the interests of the majority of 100GE and 40GE proponents.)