

Reach Questionnaire

Name (optional)
 Email (optional)
 Industry
 Size of organization

1) When did you start to deploy 10 GbE?

2003
 2004
 2005
 2006

2) Approximately how many 10 GbE ports are currently deployed in your network?
 3) Please estimate the number of 10 GbE ports that you expect to be deployed in your network 2 years from now.

4) What are your primary applications for 10 GbE? (Please check all that apply)

Data Center
 Internet Exchange (service provider)
 High Performance Computing (including clusters)
 Building Backbone
 Campus Backbone
 Metro Area network (service provider)
 Long haul WAN

5) For the above applications of 10 GbE, please indicate the approximate distribution of interface types and the typical and maximum reaches in the following table.

Interface Type	% of ports 2 yrs ago	% of ports today	% of ports in 2 yrs	Reach Today		Reach in 2 yrs	
				Typical	Max	Typical	Max
10GBase-SR/SW							
10GBase-LRM							
10GBase-LX4 MMF							
10GBase-LX4 SMF							
10GBase-LR/LW							
10GBase-ER/EW							
"10GBase-ZR" 80 km							
"10GBase-DWDM"							
10GBase-CX4							

6) Do you currently use Link Aggregation Groups (LAG) with multiple 10 GbE links aggregated for higher bandwidth?

7) How would you characterize the need for next generation, "Higher Speed Ethernet" (currently being studied in the IEEE and expected to be in the range 40 Gbps to 120 Gbps)?

Needed today
 Expect to need in 2 years
 Expect to need in 4 years
 Expect to need in 6 years
 Expect 10 Gigabit Ethernet to meet all foreseeable needs

Don't Know/Too difficult to project

8) What would be your primary applications of “Higher Speed Ethernet”? (Please check all that apply)

- Same as 10 GbE
- Data Center
- Internet Exchange (service provider)
- High Performance Computing (clusters)
- Building Backbone
- Campus Backbone
- Metro Area network (service provider)
- Long Haul WAN

9) At what level of price/performance would Higher Speed Ethernet (HSE) begin to become economically feasible for wide deployment in your network?

- 4X performance for 4X price of 10 GbE
- 4X performance for 3X price of 10 GbE
- 4X performance for 2X price of 10 GbE
- 10X performance for 10X price of 10 GbE
- 10X performance for 7X price of 10 GbE
- 10X performance for 5X price of 10 GbE
- 10X performance for 3X price of 10 GbE
- Other _____X performance for _____X price of 10 GbE

10) Assuming that Higher Speed Ethernet meets your economical feasibility threshold specified in the previous question, what do you expect to be the ratio of HSE ports to 10 GbE ports 2 years after beginning to deploy HSE?

One HSE port for every _____ 10 GbE ports

11) For wide deployment in your network. what would be your expected reach requirements in meters for Higher Speed Ethernet?

Reach Need Media type	% of ports Initial Deployment	% of ports 2 yrs later	Typical Reach (m)	Max reach (m)
0-15m Copper				
0-50m MMF				
0-150/300m MMF				
0-150/300m SMF				
0-2/10 km SMF				
10-40km SMF				
>40 km SMF				

12) Please indicate the degree to which you agree with the following statements regarding HSE. (Agree strongly, Agree Somewhat, Neither Agree nor Disagree, Disagree Somewhat, Strongly Disagree)

- a) Compatibility with the existing cabling plant is critical for deployment of HSE in my network
- b) Port-to-port latency over short reaches of HSE (i.e., latency increments in the range of 1-3 microseconds for reaches <150-300 meters) is critical to my anticipated application.
- c) Robustness of HSE connections (i.e., the ability to plug and play numerous connections without careful cleaning and verification of connection quality) is critical to my application.
- d) I want to adopt a single type of HSE interface that I would use as a common solution to a range of deployment variations (e.g., in the data center, for both horizontal connectivity and vertical (riser) connectivity or e.g., in the metro, deployment in the distribution, aggregation, and core layers of the MAN).
- e) For my application, I plan to focus on the Total Cost of Ownership (TCO) to guide my decisions regarding interface types and media options.

13) As a solution for short reach applications (<150 to 300 meters) would you consider pre-terminated MMF array cabling (possibly with as many as 12 fiber pairs) as a viable alternative to a single fiber pair solution (likely to be based on some form of WDM)?

- a) Yes, if the Total Cost of Ownership (TCO) of array cabling connectivity is less than one half the TCO of single fiber pair connectivity
- b) Yes, if the TCO of array cabling connectivity is less than three quarters the TCO of single fiber pair connectivity
- c) Yes, if the TCO of array cabling connectivity is the same as the TCO of single fiber pair connectivity
- d) No, would not consider array cabling regardless of TCO advantage