STA -T10 Liaison Report

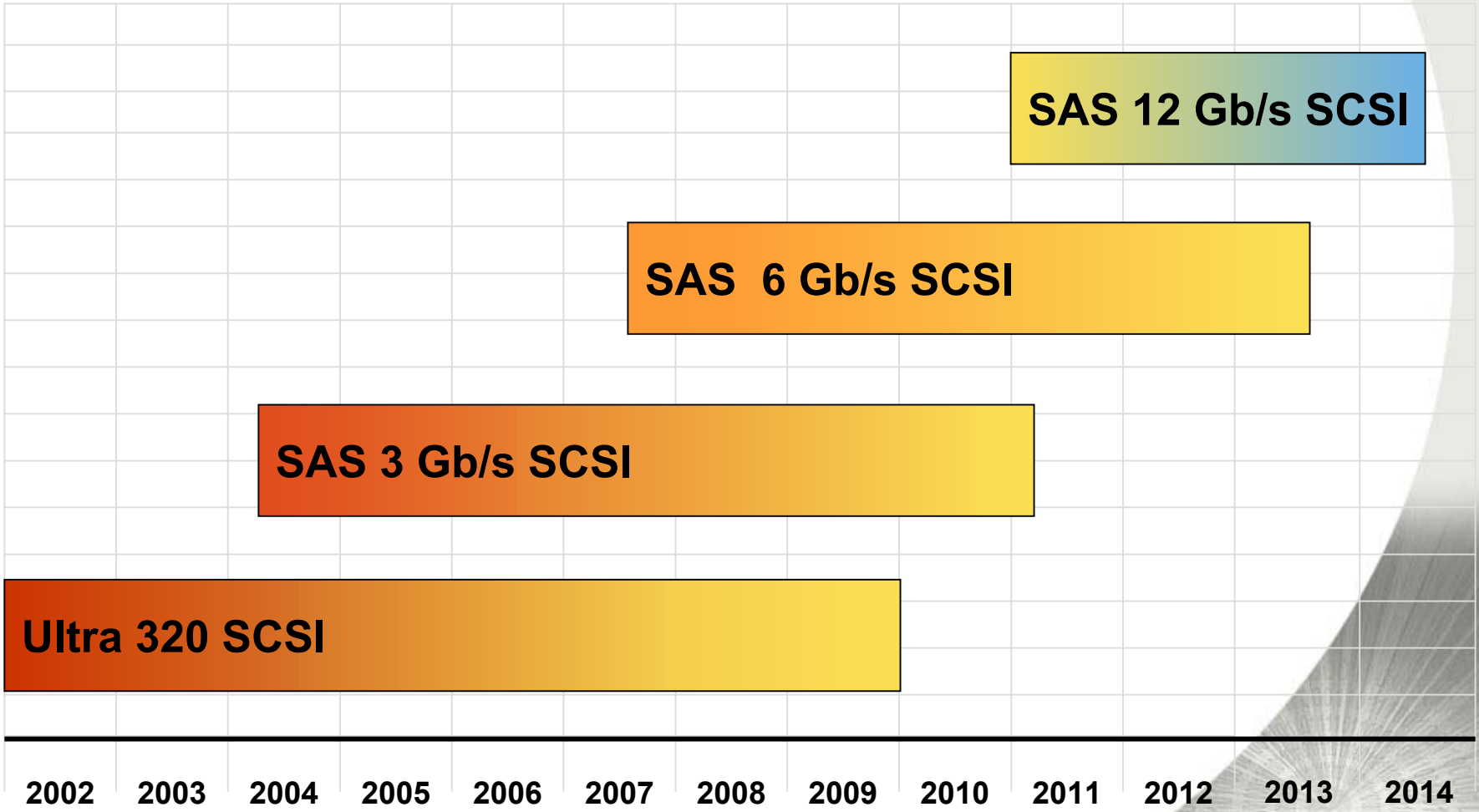
September 16, 2005

9/14/2005

STA Update

- Next plugfest for week of September 26 at UNH
  - NDA on STA website Needed to attend planning sessions starting in Aug.
  - Focused on large system build, error handling/exception testing, and 3Gb SATA compatibility
- STA recommends the inclusion of color (Blue) pull tabs on the Mini SAS 4x connectors to denote a SAS connector
- Updated Roadmap

SAS Roadmap



Note: Beginning of bars denote first plugfest utilizing the technology

Preliminary Goals for 6Gb

- Preserve 3G installments/infrastructure
- Double transfer rate while improving cost/performance
- Reduce the number of host/external storage connections/Gb
- Be compatible with 6Gb SATA within the constraints of the 6Gb SATA usage models (ie. short backplanes, short cables, etc.)
  - Longer backplanes may require additional components or higher negotiated signaling levels
- Leverage other PHY standards work (EQ, BER, etc) where applicable
  - For example: OIF CEI-6G, etc.
- Maintain 1.5Gb & 3Gb SATA/SAS Compatibility
- Same usage models apply for 6Gb as they did for 3Gb
  - Including backplane and cable distances, applications
  - Additional cost burden for rack-to-rack cabling solutions (10m) acceptable, but must not add cost to current usage models
  - Equalization schemes should not appreciably burden cost & power budget, especially for disk drives
- Critical mass components ready for plugfest testing in mid-2007

Preliminary Goals for 6Gb

- Bandwidth Aggregation
  - If required, no need to optimize for 1.5Gb bandwidth
  - Need diminishes with time
  - Complexity is a risk to meet the market window
  - Disk drive requirements vs. host/controller connections

SAS 2.0 Questions

- 6Gb Considerations meeting informative-will do it again in Austin
  - Need additional quantitative information on alternatives
    - What are the relative power and die size implications of the different EQ schemes
    - What are the detailed technical impacts (protocol and relative costs) for the different bandwidth aggregation schemes
  - STA believes the same usage models apply for 6Gb as they do for 3Gb
    - Backplane distances, system applications, etc.
    - Are there any technical considerations that conflict with this model?
  - Does the change in the roadmap timeframe change the thinking on the need for bandwidth aggregation?
    - The longer it take 6Gb to enter the market, the less interesting aggregation becomes
    - What the timing difference for a specification with and without bandwidth aggregation?
  - Is there any work that can be done by UNH to help ensure backward compatibility with existing 3Gb implementations or BER?

Next Steps

- Circulate objectives within STA
- Request feedback within 2 weeks
- Republish objectives with a request for presentations