

# ***TIA TR-42 Liaison to IEEE 802.3***

**Valerie Maguire**

**Vice Chair, TIA TR-42 Telecommunications  
Cabling Systems Engineering Committee**

**Vice Chair, TIA TR-42.7 Copper Cabling  
Subcommittee**


**March, 2013**

**Orlando, FL**

# ***Introduction to TIA***

- **Telecommunications Industry Association**
- **[www.tiaonline.org](http://www.tiaonline.org)**
- **TR-42: Defines mechanical and transmission requirements for copper twisted-pair, optical fiber, and coaxial cabling and components**
- **Chris DiMinico is outgoing liaison from IEEE 802.3 to TIA**

# *Agenda and Meeting Overview*

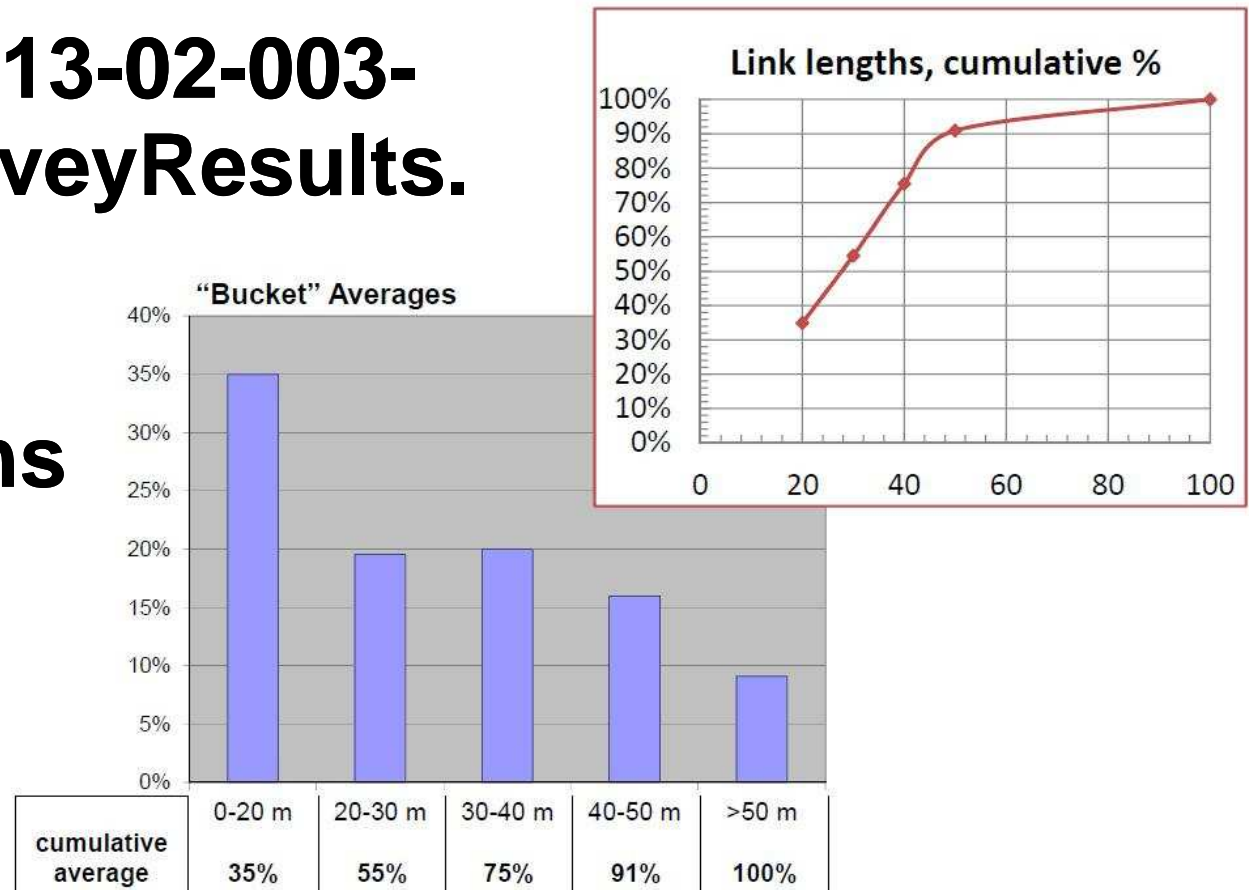
- **February 4 - 8 in Long Beach, CA**
- **Review TR-42 subcommittee activities**
  - **11 subcommittees met**
- **Update on project development**
-  **This symbol highlights key points of interest**

# ***TR-42 Liaison #1 to IEEE 802.3***

- **TIA conducted a survey seeking input on planned data center link lengths**
- **The survey consisted of seven questions designed to obtain information regarding cabling design lengths for server links (server port to access switch port) and was intended to estimate cabling lengths needed for data center applications beyond 10 Gb/s**

# TR-42 Liaison #1 to IEEE 802.3

- Refer to TR-42.7-2013-02-003- LengthSurveyResults.pdf for detailed conclusions





# ***TR-42 Liaison #2 to IEEE 802.3***

- **Draft category 8 requirements are available for review and comment**

**“Attached is a copy of the latest working draft 0.7 that contains the updated specifications for Category 8 cablings... we welcome any comments and guidance you may offer as we continue development of the cabling specifications”**

# ***TR-42 Liaison #2 to IEEE 802.3***

-  – **Draft 0.7 of ANSI/TIA-568-C.2-1, “Balanced Twisted-Pair Telecommunications Cabling and Components Standard, Addendum 1: Specifications for 100Ω Category 8 Cabling” available in password protected area**
-  – **“Although the current draft presents the parameters at 50m, we intend to provide this information on transmission parameters at the reach objective and as a function of length.”**

# ***TR-42 Activities***


- **TR-42.1 (Commercial Building Cabling):**
  - **ANSI/TIA-942-A-1, “Telecommunications Infrastructure Standard for Data Centers, Addendum 1 – Cabling Guidelines for Data Center Fabrics” approved for publication**
  - **New project: ANSI/TIA-4966, “Telecommunications Infrastructure for Educational Buildings and Spaces” circulating for industry ballot**



# ***TR-42 Activities***

- **TR-42.1 (Commercial Building Cabling), cont.:**
  - **New project: ANSI/TIA-862-B, “Building Automation Systems Cabling Standard” under development**
  - **New project: TSB-162-A, “Telecommunications Guidelines for Wireless Access Points” under development**
  - **Requirements for “Places of Assembly” under study**

# *TR-42 Activities*

- **TR-42.1 (Commercial Building Cabling), cont.:**
  - Requirements for “Distributed Antenna Systems (DAS)” under study
  - Requirements for “Network Security” under study
  -  – Structure of next edition ANSI/TIA-568-D family of Standards under review


# ***TR-42 Activities***

- **TR-42.3 (Pathways and Spaces):**
  - **ANSI/TIA-569-C-1, “Commercial Building Standard for Telecommunications Pathways and Spaces, Addendum 1 - Revised Temperature and Humidity Requirements for Telecommunications Spaces” approved for publication**
  - **New project: Errata, “Revision to Foreword text describing differences between TIA-569-B and TIA-569-C” under development**



# ***TR-42 Activities***

- **TR-42.5 (Terms and Symbols):**
  - **Definitions, acronyms, units of measure, and symbols maintained in a working document**
  - **New project: ANSI/TIA-440-C, “Fiber Optic Terminology” circulating for industry ballot**
- **TR-42.6 (Infrastructure Administration):**
  - **No new project status updates**


# ***TR-42 Activities***

- **TR-42.7 (Copper Cabling):**
  - **New project: TSB-1197, “Mode Conversion Parameters for Balanced Twisted-Pair Cabling” circulating for default ballot**
  -  – **New project: ANSI/TIA-568-C.2-1, “Balanced Twisted-Pair Telecommunications Cabling and Components Standard, Addendum 1: Specifications for 100Ω Category 8 Cabling” under development**

# ***TR-42 Activities***

- **TR-42.7 (Copper Cabling), cont.:**
  - **Strawman draft 0.7 recently completed**
  -  – **Converging on specifications for a 2-connector, 50-meter channel (TBD)**
  -  – **Bandwidth specification converging on 2 GHz (TBD)**
  - **Shadi AbuGhazaleh to present Link Length Survey Results to Next Generation BASE-T Study Group**

# ***TR-42 Activities***

- **TR-42.9 (Industrial Infrastructure):**
  -  – **Noise induced on cabling carrying 1000BASE-T in E2 and E3 environments under study**
- **TR-42.10 (Sustainable Information Communications Technology)**
  - **Revised subcommittee name**
  - **New project: ANSI/TIA-xxxx, “Standard for Sustainable Information Communications Technology” under development**

# ***TR-42 Activities***

- **TR-42.11 (Optical Fiber Systems):**
  - **TSB-172-A, “High Data Rate Multimode Fiber Transmission Techniques” published**
  - **New project: TSB-4979: “Practical Considerations for Implementation of Multimode Launch Conditions in the Field” circulating for committee ballot**



# ***TR-42 Activities***

- **TR-42.11 (Optical Fiber Systems), cont.:**
  - **New project: TSB-xxx, “Encircled Flux Launch Conditions” under development**
  - **New project: TSB-xxx, “Loss Budget” under development**
  - **4 Standards related to Jitter Tolerance, Jitter Transfer Function, Output Jitter Measurement, and Systematic Jitter Generation under maintenance**

# ***TR-42 Activities***

- **TR-42.12 (Optical Fibers and Cables):**
  - **New project: TIA-455-7/FOTP-7, “Numerical Aperture” circulating for committee ballot**
  - **New project: TIA-455-28/FOTP-28, “Dynamic Tension” circulating for committee ballot**
  - **New project: TIA-455-58/FOTP-58, “Core Size (adoption of IEC 60793-1-20)” circulating for reaffirmation ballot**

# ***TR-42 Activities***

- **TR-42.12 (Optical Fibers and Cables), cont.:**
  - **New project: TIA-455-80/FOTP-80, “Patch Cord Wavelength” circulating for committee ballot**
  - **New project: TIA-455-177/FOTP-177, “Graded-index MMF (adoption of IEC 60793-1-31)” circulating for reaffirmation ballot**
  - **New project: TIA-598-D, “Cable Color Coding” circulating for committee ballot**

# ***TR-42 Activities***

- **TR-42.12 (Optical Fibers and Cables), cont.:**
  - **New project: TIA-455-204-A/FOTP-204, “Multimode Bandwidth, adoption of IEC 60793-1-41” circulating for reaffirmation ballot**
  - **New project: TIA-455-220/FOTP-220, “DMD Measurement, adoption of IEC 60793-1-4” circulating for reaffirmation ballot**
  - **20+ documents circulating for reaffirmation ballot**

# ***TR-42 Activities***

- **TR-42.13 (Passive Optical Devices and Metrology):**
  - **9 Standards approved for reaffirmation**
  - **4 documents circulating for reaffirmation ballot**
- **TR-42.16 (Grounding and Bonding):**
  - **New project: ANSI/TIA-607-B-2, “Structural Metal” under development**

# *Upcoming TIA Meetings*

## **TR-42 Plenary Meetings**

**June 10 - 14, 2013**

**Portland, OR**

**[www.tiaonline.org](http://www.tiaonline.org)**

***Thank you***

**Contact Information:**

**Valerie Maguire**

**The Siemon Company  
101 Siemon Company Drive  
Watertown, CT 06795**

**phone: (602) 228-7943**

**valerie\_maguire@siemon.com**