ITU high level structure

- ITU is an organization of the UN
  - Structure and scope of work for ITU-T study groups as well as SG leadership, is refreshed on a 4-year cycle via WTSA
    - The next WTSA is October 2024
  - Leadership at the WP and Question level is determined by the SG chair

- Documents
  - Normative standards are referred to as Recommendations
  - Informative documents are Supplements or Technical Reports

WTSA – World Telecommunication Standardization Assembly
TSAG - Telecommunication Standardization Advisory Group
SG – Study Group
WP – Working Party
Q - Question
### ITU-T SG15 structure

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WP: Working Party
Joint ITU-T SG15-IEEE 802 workshop

• The 9th joint ITU-T SG15-IEEE 802 workshop was held 13 July 2024
• 184 people registered
• Discussion was organized in 4 sessions moderated by SG15 and 802 leaders
  • Exploration of Optical PHYs Addressing 800 Gb/s and Beyond
    John D’Ambrosia (802.3dj task force chair) and Steve Gorshe (Q11/15 rapporteur)
  • Access and In-Premises Networks
    Frank Effenberger (Q2/15 rapporteur) and George Zimmerman (802.3dg TF chair)
  • Synchronization and TSN
    Janos Farkas (802.1 TSN task group chair) and Stefano Ruffini (Q13/15 rapporteur)
  • YANG and Data Modelling
    Scott Mansfield (Q14/15 rapporteur)
• Closing/summaries
  Glenn Parsons (SG15 chair) and James Gilb (802.3 chair)
Workshop key takeaways (1)
Examples of successful collaboration

• Extensive collaboration between P802.3dj, P802.3dk, Q2/15, Q5/15, Q6/15 over several months leading to the revision of ITU-T G.652

• Reuse of FEC frames enables pluggable modules to support both Ethernet and ITU interface specifications
  • SG15 expects to continue reusing Ethernet FEC frames and pluggable modules for short-reach interfaces at 800G and 1.6T
  • 800GBASE-ER1 aligns to both OIF 800ZR and ITU FlexO-8e-DO formats

• Component reuse and design synergy for PON and bidirectional PHYs (e.g., one module can meet both 802.3 and SG15 specifications)

• Coordination for YANG model development
Workshop key takeaways (2)

Additional observations

• There are opportunities to improve synergy between the various in-premises networking technologies (WiFi, copper Ethernet, optical Ethernet)

• Fiber manufacturers had been focused primarily on reducing loss and bend sensitivity, and ignoring other characteristics like CD since they were not important at lower signaling rates; the introduction of 200G/lane (and future extension to 400G/lane) requires a different focus

• PTP accuracy is becoming more important for both Ethernet interfaces and transport network interfaces

• Scalability is a key concern for YANG interfaces
Key results from SG15 meeting

• Status of ITU-T SG15 ‘adoption’ of IEEE 802.3
  • The proposal was agreed; approval process expected to start at the next SG15 meeting in March 2025
  • There is also interest in extending this concept to other IEEE 802 documents, e.g., IEEE 802.1Q
  • Q10/15 will be responsible for this work

• Approval process for revised G.652 has started

• Transmit Quality Metrics for 800G under discussion in Q6/15

• Additional details are in liaison statements
Next ITU-T SG15 meetings

• Q6/15, Q11/15, and Q13/15 will meet 18-22 November 2024

• SG15 plenary 17-28 March 2025, Geneva, Switzerland