ITU-T SG15 Liaison Report

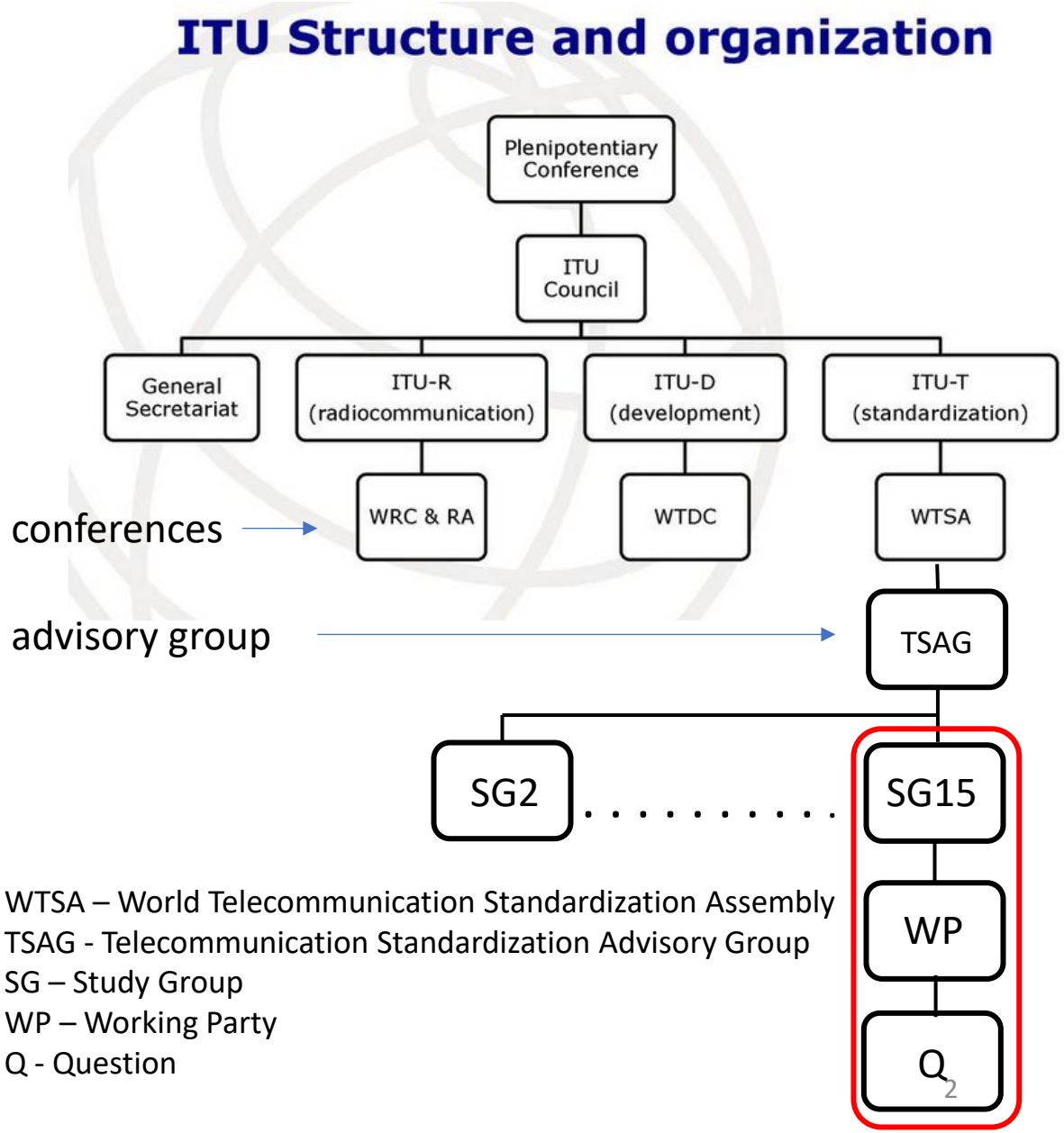
9 November 2026

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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 2028
  - 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



ITU-T SG15 structure

	Question	Question title
WP1/15	1/15	Coordination of Access and Home Network Transport Standards
	2/15	Optical systems for fibre access networks
	3/15	Technologies for in-premises networking and related access applications
	4/15	Broadband access over metallic conductors
WP2/15	5/15	Characteristics and test methods of optical fibres and cables, and installation guidance
	6/15	Characteristics of optical components, subsystems and systems for optical transport networks
	7/15	Connectivity, Operation and Maintenance of optical physical infrastructures
	8/15	Characteristics of optical fibre submarine cable systems
WP3/15	10/15	Interfaces, interworking, OAM, protection and equipment specifications for packet-based transport networks
	11/15	Signal structures, interfaces, equipment functions, protection and interworking for optical transport networks
	12/15	Transport network architectures
	13/15	Network synchronization and time distribution performance
	14/15	Management and control of transport systems and equipment

WP: Working Party

Joint ITU-T SG15-IEEE 802 workshop recap

- The 10th joint ITU-T SG15-IEEE 802 workshop was held 11 July 2026, with the theme “Emerging Standards in the AI/ML World”
- 199 people registered
- Discussion was organized in 4 sessions moderated by SG15 and 802 leaders
  - **AI Applications**
    Roger Marks (IEEE 802.1 NENDICA chair) and Stephen Shew (ITU-T SG15 vice chair, Q12/15 rapporteur)
  - **Protocols**
    Paul Bottorff (Editor, IEEE 802.1AB) and Silvana Rodrigues (ITU-T WP3/15 vice chair)
  - **Higher Speed Solutions**
    John D;Ambrosia (IEEE P802.3dj task force chair) and Sudipta Bhaumik (ITU-T WP2/15 chair)
  - **Fiber for AI Applications**
    Kazuhide Nakajima (ITU-T Q5/15 rapporteur) and Vince Ferretti (ITU-T Q5/15 associate rapporteur)
  - **Closing/summaries**
    Glenn Parsons (ITU-T SG15 chair, IEEE 802.1 chair) and James Gilb (IEEE 802 chair)

Key conclusions from the workshop

Ethernet enhancements needed to support AI

- Protocol enhancements: congestion notification, link reliability, synchronization
- High-speed interfaces, including coherent transmission
- Fiber technology
- Passive components
- Enhanced network operations

AI enhancement of networks

- Sensing
- Prediction
- Optimization
- Automation

Collaboration between SDOs

- Earlier engagement
- Cross-participation

SG15 projects of potential interest to 802.3

Q5: Multicore and hollow core fiber specifications

- G.Sup87: Standardization framework for optical fibre for space division multiplexing – agreed in March 2025
- G.csmcf: Characteristics of a cut-off shifted single-mode weakly-coupled multi-core optical fibre and cable (target 2028)
- G.smmcf: Characteristics of single-mode weakly-coupled multi-core optical fibre and cable (target 2028)
- GSTR-HCF: Hollow-core fibre technologies and systems (target TBD)

OTN extension to beyond 1 Tb/s (B1T) with new Ethernet-optimized path layer

- Q11: G.709.1 (frame formats), G.709.5 (short-reach FEC frames) G.709.6 (long-reach FEC frames) - approved October 2026
- Q11: G.798.4 (Equipment functional specifications) - expected to finish in early 2027
- Q12: G.872 (OTN architecture) – expected to finish in early 2027
- Q14: G.87x (Management models) expected in 2027
- Q6: G.698.2 (Long-reach optical interfaces, leveraging OIF ZR+) in progress

Q13: Continuing work to improve the accuracy of timing over packet networks

Where to find more information

- Published ITU-T Recommendations: ITU-T Recommendations
  - Freely downloadable by anyone in PDF format
  - ITU-T sector members or ITU-T SG15 associate members may download documents in Word format also
- SG15 public homepage: SG15 - Networks, technologies and infrastructures for transport, access and home

Next ITU-T SG15 meetings

- SG15 plenary 15-26 February 2027, Geneva, Switzerland

- Recent interim meetings of Questions:
  - Q11/15, 19-23 October, Nanjing, China
  - Q12/15 and Q14/15, 26-20 October, Geneva, Switzerland
  - Q5/15, 5-6 November, Geneva, Switzerland
  - Q6/15, 10-13 November, Chengdu, China

Thank you!