SUBMISSION TOPICS FOR TECHNICAL PAPERS

Technical papers must focus on emerging, forward-thinking technology that does not yet exist and is projected to develop within the next 1-3 years, in the following areas:

- **DOCSIS®**
- **Wireless & Convergence**
- **AI & Automation**
- **Optical**
- **Differentiated Services**

Submission Topics for New Formats

WIRELINE

- DOCSIS® 4.0
- The evolution of wireline through DOCSIS MAC/PHY: Which way next? Is there a next – or is EPON and FWA the way forward?
- Current generation access technologies and convergence: HFC, FTTP, and 5G FWA
- Does bandwidth still matter in the post-gigabit era, or should we refocus on new network priorities that truly enhance the customer experience?
- The emergence of low latency dual queue networking – what are the impacts on the application ecosystem and the customer experience.
- Case studies showcasing outcomes, challenges, and key learnings from projects completed within the past year.

WIRELESS & CONVERGENCE

- 5G FWA and its impact the broadband ecosystem: why is 5G FWA winning with consumers? Where does DOCSIS and EPON technology have an edge?
- In-home Wi-Fi performance is viewed by customers to reflect their ISP's performance. What are ISPs doing to diagnose and fix in-home wireless performance issues? Challenges and benefits of small cells and distributed antenna systems (DAS).
- Case studies showcasing outcomes, challenges, and key learnings from projects completed within the past year.

AI & AUTOMATION

- AI and ML for network optimization, maintenance and management.
- AI and telemetry in service assurance, fault detection, self-healing networks.
- New ways of measuring QoS and customer experience – moving beyond speed test.
- Telemetry data analytics, management and visualization for enhanced decision-making.
- Using telemetry and AI for network security, monitoring and threat detection.
- Case studies showcasing outcomes, challenges, and key learnings from projects completed within the past year.

DIFFERENTIATED SERVICES

- Next level customer experience and network performance: zero touch onboarding, follow-me services, authorization and zero trust architectures.
- API-first network architecture: automation, scalability, service differentiation to support new business models.
- Context-Aware Networks: adapting dynamically to customer location, device type, and application needs in real-time for optimal performance.
- How can we ensure inclusive, accessible, and future-proof connectivity for all? What innovations are essential to deliver services for aging in place and remote learning?
- How can operators drive revenue growth, and what role do edge computing and edge inferencing play in unlocking new opportunities?
- Case studies showcasing outcomes, challenges, and key learnings from projects completed within the past year.

OPERATIONS & PLANNING

- Best practices for spectrum management: after video goes all IP and linear QAM is retired – what to do with all the bandwidth?
- As edge computing and AI infrastructure drive an increasing demand for energy, facilities power is becoming a critical focus. With some private sector companies exploring the development of their own power reactors, how should the industry evolve to ensure sustainable, reliable, and future-proof networks?
- Tackling workforce challenges with automation and advanced tooling – enhancing network efficiency while reducing manual intervention and truck rolls.
- Case studies in energy efficiency, network resiliency and disaster recovery.

CONSTRUCTION

- Planning and executing rural and urban broadband projects: techniques for reducing disruption.
- Drop replacement in brownfield areas: when to build back FTTP rather than coax drops.
- Operational cost differences between HFC and EPON – case studies to explore lower-touch fiber vs coax.
- Case studies showcasing outcomes, challenges, and key learnings from projects completed within the past year.