INTERNATIONAL TELECOMMUNICATION UNION
TELECOMMUNICATION STANDARDIZATION SECTOR
STUDY PERIOD 2025-2028

SG15-LS139
STUDY GROUP 15
Original: English

Question(s): 12/15 Geneva, 26-30 October 2026

LS

(Ref.: TD294/WP3)

Source: ITU-T Study Group 15

Title: LS on International Optical Networks towards 2030 and Beyond (ION-2030) Summary and Future work

LIAISON STATEMENT

For action to: ITU-R SG5, ITU-R WP5D, ITU-T SG2, SG13, SG20, SG21, 3GPP (RAN3, SA5), Broadband Forum, ETSI (TC ATTM, TC NET), IEEE 802.1, IEEE 802.3, IETF (routing area), OIF, WAA, WBBA

For information to: Mplify Alliance, TM Forum (Autonomous Networks project)

Approval: ITU-T SG15 Q12 & Q14 RGM meeting (Geneva, 30 October 2026)

Deadline: 1 Feb 2027

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Abstract: This liaison statement announces the summary and future plan of ITU-T ION-2030, and invites feedback that can influence future standards development activities.

We are pleased to inform you that ITU-T SG15 had published the technical report of International Optical Networks towards 2030 and Beyond (GSTR.ION-2030). This document is a strategic framework to guide the evolution of optical network.

Following GSTR.ION-2030, a series of projects were initiated since late 2025 to study explicit scenarios (i.e. use cases & corresponding requirements) for ION-2030, including:

1. G.sup.ION-aiBB ("AI-enhanced broadband") in SG15 Q2 to describe the use cases and requirements of AI-enhanced optical networks for broadband, investigate the AI-enhanced network capabilities and the enhancements needed to support AI services, and define AI-enhanced optical network mechanisms.
2. G.sup.ION-aiHome ("AI-enhanced home network") in SG15 Q3 to guide the application of AI technologies in home networks, including the deployment, configuration, and selection schemes for AI models and agents in home networks.
3. G.sup.ION-aiBusiness ("AI-enhanced business network") in SG15 Q3 to guide the application of AI technologies in business networks, including the deployment, configuration, and selection schemes for AI models and agents in business networks.
4. TR.ION-aiDC ("Optical technologies for Data Centres optimized for AI") in SG15 Q6 to investigate the use of optical technologies in datacentre architectures for ION-2030,

encompassing datacentre interconnects (DCI) and datacentre networking (DCN), as well as AI implications on these technologies.

5. GSTR.ION-TN6G ("Transport Support for IMT-2030/6G") in SG15 Q12 to study transport network support for IMT-2030/6G, building upon the framework of GSTR.ION-2030 and considering relevant progress in IMT-2030/6G. The document addresses transport network requirements, architecture considerations, deployment scenarios and potential enabling technologies for IMT-2030/6G.
6. G.eno-arch ("Architecture for Enhanced Network Operation") in SG15 Q12 to specify the enhanced network operations (ENO) reference architecture for transport networks. This architecture is described in terms of abstract ENO components and interfaces that represent logical functions.

Based on the demands from the work above, ITU-T SG15 is planning the future work for ION-2030, such as technology requirements and technology solution, etc. Therefore, ITU-T SG15 invites your organization to provide feedback on the topic of ION-2030, regarding to networks, technologies and infrastructures for transport, access and home.

We appreciate that your organization could indicate the works related to ION-2030 and we are looking forward for future collaboration/cooperation between our organizations. The next ITU-T SG15 plenary meeting will be 15-26 February 2027.