ISO/IEC SC25/WG3 Liaison Report

- Customer Premises Cabling –

November 2025

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ISO/IEC SC25/WG3 Meeting

13-16th October 2025

- Customer Premises Cabling -

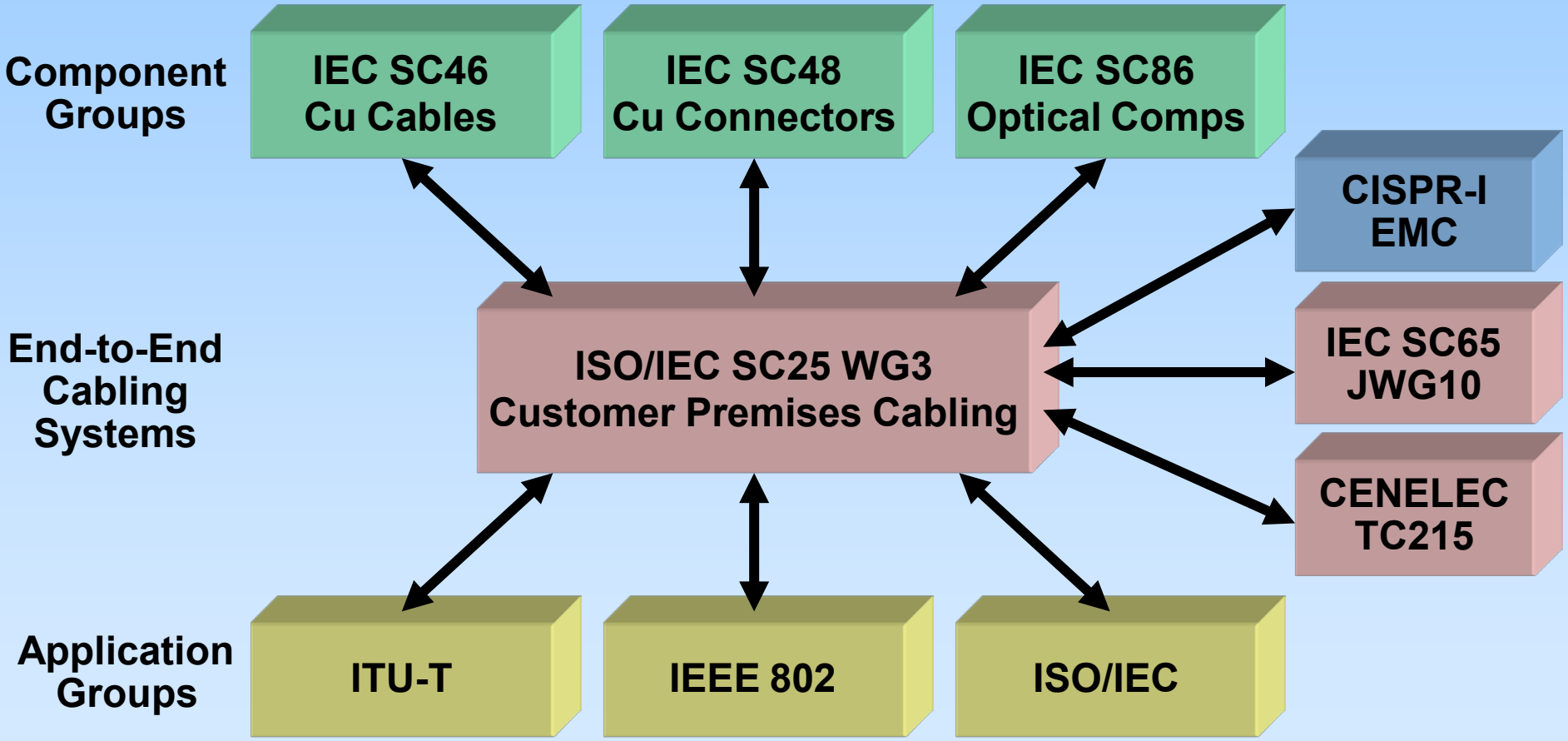
Key Items:

1. Generic single-pair cabling has been developed, with three new classes of cabling in ISO/IEC 11801-1 Amd1, and will be published before the end of the year.
    1. A small corrigendum will also be prepared to remove reference length footnotes for PS AACR-F.
2. Work has begun on the 2nd amendment to ISO 11801-1, including further efforts on creation of a plug 'n play set SPE classes and use of 0.25dB connectors in fibre optic channels
3. Work begins on an update to the ISO/IEC 11801-5 Structured cabling for data centers standard, focusing on AI data center topics
4. It will be required that cabling with current carrying capacity below 2A is assessed, labelled and identified according to the administration requirements of 14763-2, and it has been clarified that SP cabling is intended to carry up to 2A.
    1. When cable sharing, each multipair cable pair will be treated as its own distinct 1P cable.
5. The 11801-6 standard for Distributed Cablings Systems will be circulated as CDV.
6. ISO/IEC 14763-3 optical fiber testing standard is being updated, and work continues a next edition/revision/amendment.
7. The Physical Network Security 24383 draft gives requirements for multiple levels of security and has moved to CDV stage.
8. The ISO 14763-6 Standard defining skillsets for installers has moved to CD stage.
9. The TR11801-9903 Ed.2 Cabling Modelling technical report was published September 2025.
10. Cabling Sustainability 14763-5 was published April 2025.
11. The ISO/IEC 30129 Grounding and bonding standard was published July 2025.

33 Participants

11 Nations

Process Model



Publications

ISO/IEC TS 11801-9903:2025 ED2– September 2025

Information technology - Generic cabling for customer premises - Part 9903: Modelling of channels and links

- Modelling document adding mixed mode and common mode parameters for the 16 port model of a 4-pair system, and guidance on Salz SNR modeling, to help development of cabling to support existing and future applications.

ISO/IEC 30129:2015/AMD2:2025 ED1 – July 2025.

Amendment 2 - Information technology - Telecommunications bonding networks for buildings and other structures

- This provides requirements for grounding and bonding of structured premise cabling.

ISO/IEC 14763-5:2025 ED1 – April 2025

Information technology – Implementation and operation of customer premises cabling – Part 5: Sustainability

- The standard for physical network sustainability requirements.

Generic Cabling for Single-pair Applications

- **Amendments to generic cabling standards were reviewed:**
  - **ISO/IEC 11801-1 General**
  - **ISO/IEC 11801-6 Distributed building services**
- **3 classes of single-pair cabling are being developed.**
  - **T1-A, 20 MHz, 1000m (Generic cabling including support of 802.3cg)**
    - **Split into 1000m, 400m, 250m & 100m Sub classes**
  - **T1-B 600MHz 100m (Generic cabling including support of other IEEE SPE)**
  - **T1-C Additionally 1250MHz, 100m to present additional generic opportunities**
- **ISO/IEC 11801-1 Amd1, is in the final stages of central office publication and is expected to be available before the end of the year.**
  - **No changes were made to the use of assessment of the cabling to establish current carrying capacity and clear identification of cabling rated below 2A.**
  - **A small corrigendum will also be prepared to remove reference length footnotes for PS AACR-F.**
  - **A small corrigendum will also be prepared to remove reference length footnotes for PS AACR-F.**
- **Following conclusion of the ISO/IEC 11801-1 Amd 1 work, comments have been resolved to ISO/IEC 11801-6 Amd1 (Distributed Building Systems) this will to move to the CDV stage before the end of the year.**

ISO 11801-1 Amd 2

- **With the imminent publication ISO/11801-1 Amd.1, SC25 WG3 is conducting preliminary work prepare the first draft of a next amendment for ISO/IEC 11801-1.**

- **Topics include:-**
  - Attempting a plug ‘n play approach to 2A SPE classes based on decoupling the class names from an implied specific length (eg T1A-1000), and producing ‘short’, ‘medium’, and ‘long’ classes each with their own guidance for 2A (and lower) current carrying capacity.
    - Work is very early on this topic and subject to change.
  - It was agreed to do preliminary work regarding the allowance of fibre optic channels to be constructed with 0.25dB connectors.
  - Harmonisation of distances for 4pr cabling – alignment between cabling in our 11801 series and 14763-2.
  - 100Mb – SPE specified to at least 60 MHz.
  - Link Length Equations for SPE .
  - Update current vs reach tables to include 2A.

Single pair integration into ISO/IEC 14763-2

- Work continues to address the changes that will be needed for single pair cabling within the planning and installation standard ISO 14763-2.
- This will include:-
  - Consideration of cable heating in bundles for 2A powering
    - There will be significant length derating as result considering thermal rise
    - 2A may also greatly reduce the number of cable in a bundle.
  - Changes to the RP levels of powering class to reflect single pair currents
    - Agreement to add 3 new RP classes for 1P cabling
    - Agreement to address cabling sharing using an approach of treating each pair of a multipair cabling as it's own distinct 1P cabling, including labelling, modelling and administration.

ISO/IEC11801-5 Data Centre Updates for AI

- **SC25/WG3 noted that the growing number of AI data centres are not well supported by our current 11801-5 documents, as these types of data centres use different densities, topologies, cabling and cooling than other types of data centre.**
- **It was agreed that updated guidance for AI Data Center cabling infrastructure is required from SC25 WG3.**
- **A new project for ISO/IEC 11801-5 amendment 1 was approved, with initial content (including AI DC Architecture, MPO cabling components specs, polarity, link testing, and cooling).**
  - Content for the amendment will be assembled from contributions presented to the meeting and circulated as a working draft.

ISO 14763-3 Optical testing

- **Following publication of the 2024 edition of the ISO 14763-3 standard for testing of optical fibre cabling, SC25 WG3 is continuing work to develop content for the next update to this document.**

- **Possible Topics include:-**

  - PON testing (Power Meter, OTDR)
  - PON Optical return Loss requirements and testing
  - Addition of Reference connectors (MPO16)
  - Testing of MPO Breakout Links
  - Review the test methods and guidance on test equipment and MPO connectors
  - 3 Jumper test method for industrial optical connectors

- **Work will continue at the next SC25 WG3 to prepare a first working draft.**

ISO/IEC 24383 Physical Network Security

- Comment resolution began on the 10th CDISO/IEC 24383 for physical network security including guidelines for customer premises in these areas:
  - Security planning
  - Security systems
  - Intelligent building systems
  - Administration systems
- The draft specifies requirements for 4 levels of security:
  - Open (to be based on 14763-2)
  - Restricted
  - Secure
  - Highly Secure
- The document will be circulated as CDV before the end of the year.

Other items

- **A standard defining the skillsets needed for ICT installers is being developed as ISO/IEC 14763-6, and is being preparing as a CD for national committee comment.**

Upcoming Meetings

- **March 16 – 27th 2026, Virtual**
- **November 16-19th 2026, Hamburg**
- **April 5-16th 2027, Virtual**

Document Access for 802.3

The main documents will be placed on a password protected area of 802.3 website

- **Other documents available on request from your liaison officer.**

https://www.ieee802.org/3/private/liaison_docs/ISO_IEC_SC25/

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SC25 WG3 would like to encourage input from the IEEE to help make our standards better and welcomes feedback through the liaison channels.

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Questions?

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