

ISO/IEC SC25/WG3 Liaison Report

- Customer Premises Cabling –

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ISO/IEC SC25/WG3 Meeting

Sydney, Australia: 24-28 February 2020

- Customer Premises Cabling -

Key Items:

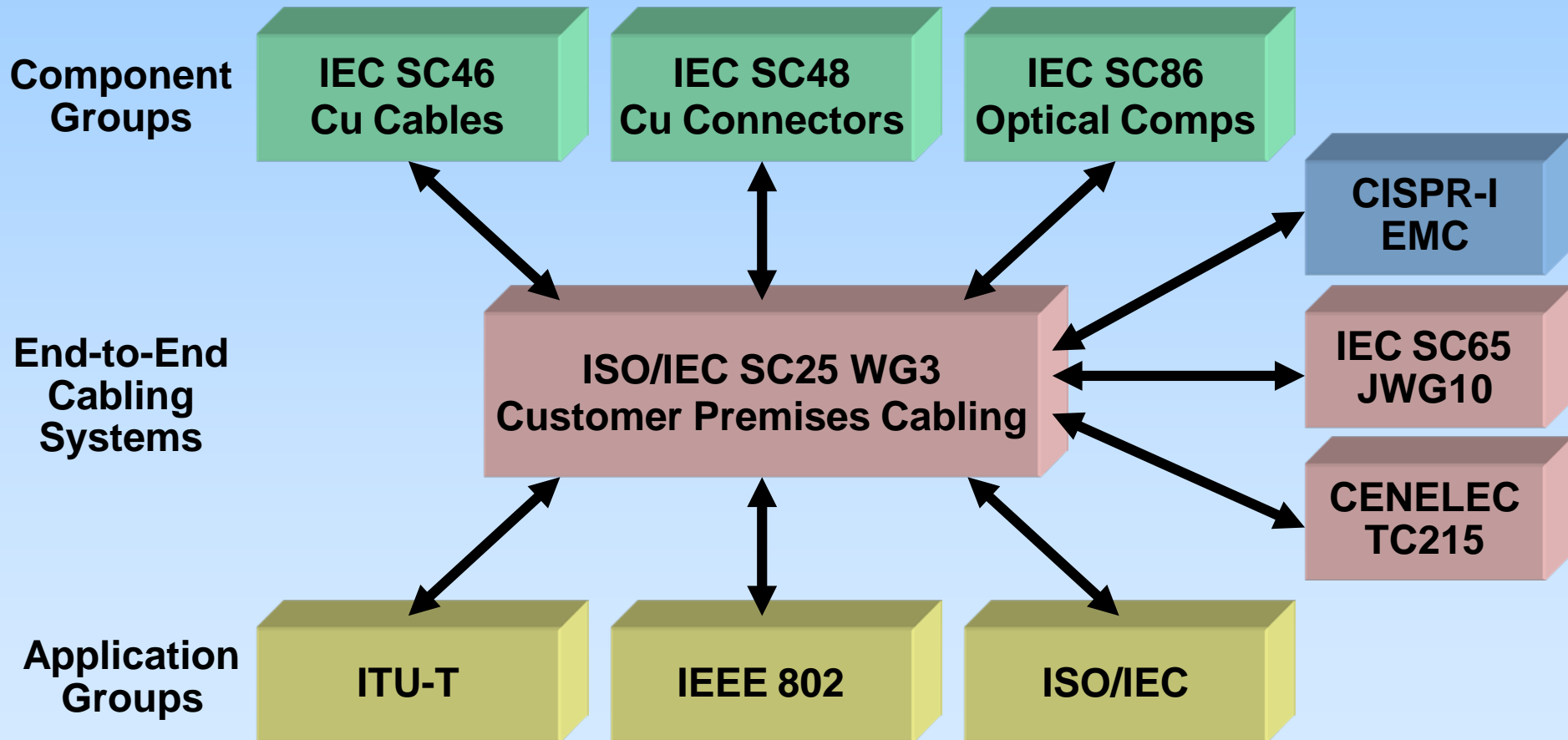
1. Application specific single-pair Cu cabling was published 02-2020
2. Generic single-pair cabling with three new classes of cabling
3. Work beginning on a multidrop TR
4. Amendment to remote powering specification will be published
5. Planning/Installation standard including remote powering was published 12-2019
6. Automated Infrastructure Management is being extended for PoE considerations
7. High speed cabling for MMF TR will be published
8. Physical Network Security
9. Cabling Sustainability
10. Investigation of Cu cabling to support 25Gb/s longer-reach
11. Alternative cabling topologies



29 Participants

10 Nations

Process Model



Publications

IEC has recently published the following WG3 projects:

- **ISO/IEC TR 11801-9907:** Information technology – Generic cabling for customer premises - Part 9906: Balanced 1-pair cabling channels up to 600 MHz for single pair Ethernet (SPE)
- **ISO/IEC 14763-2:2019:** Information technology — Implementation and operation of customer premises cabling — Part 2: Planning and installation

ISO/IEC TR 11801-9906: Application specific Single-pair Cabling

- **This is a Technical Report to define application specific single-pair cabling to 600MHz in support of:**
 - **802.3bp (1000BASE-T1)**
 - **802.3bw (100BASE-T1)**
 - **802.3cg (10BASE-T1)**
- **The Technical Report was published February 2020**

Generic Cabling for Single-pair Applications

- **Amendments to generic cabling standards were reviewed:**
 - ISO/IEC 11801-1 General
 - ISO/IEC 11801-3 Industrial
 - ISO/IEC 11801-6 Distributed building services
- **3 classes of single-pair cabling are being developed.**
 - 20 MHz, 1000m (Generic cabling including support of 802.3cg)
 - Split into 1000m and 400m Sub classes
 - 600MHz 100m (Generic cabling including support of 802.3bp/bw)
 - Additionally 1250(ffs)MHz, 100m(ffs) to present additional generic opportunities
- **A 2nd CD for ISO/IEC 11801-1 Amd1 will be distributed shortly.**
- **CDV for ISO/IEC 11801-3 Amd1 is out for vote until 27/2/2020**
- **A CD of ISO/IEC 11801-6 Amd1 will be distributed shortly.**

Multidrop Cabling

- **SC25WG3 is to raise a NWIP for a technical report into the use of multidrop cabling**
- **The report is intended to cover**
 - **Multidrop cabling elements**
 - **Their use as Type B cabling as referenced by they 11801-6 project**

Remote Powering

- **ISO/IEC TS 29125 specification covers issues related to power delivery on customer premises cabling (SC25/WG3).**
- **Amd1 is being developed to expand the scope to include single-pair cabling and 28 AWG patch-cords.**
- **Constants have been developed to allow calculation of temperature rise of single-pair cabling due to remote powering.**
- **During the February meeting it was agreed to publish the Technical specification**
- **It was agreed to add requirements to the 11801-1 Amendment that flexible cables with a diameter below 0,4 mm shall not be used for remote powering.**
 - **The second amendment cover 0.32mm cords was therefore cancelled.**

Planning/Installation & Automated Infrastructure Management(AIM) systems

- 1. The ISO/IEC 14763-2 Ed.2 Planning and Installation standard addressing cabling that supports PoE in new buildings and refurbishments.**
 - Was published 12-2020**
- The AIM standard ISO/IEC 18598 Amd1 was out for vote, deferring the comment resolution until the next meeting.**
 - Includes bundle size, resistance, and other considerations relevant to PoE**
 - Draft amendment approved for circulation as a DAM for national committee comment**

High-speed MMF Applications

- **Technical Report ISO/IEC TR 11801-9908: provides guidance for MMF cabling to support a wide range of applications from 10G to 400G, as well as migration/upgrade considerations.**
- **Supported channel lengths are listed for OM3, OM4 and OM5 fibre types.**
- **The Technical report has been approved for publication.**

Balanced Cu cabling in support of up to 25Gb/s data rate

- Technical report ISO/IEC TR 11801-9909 provides an evaluation of the ability for standardised cabling systems to support at least 25Gbps use cases that reach over 50m.
- The TR also offers an evaluation of improvements to cabling and components that would be required to further extend the reach.
- The TR has been approved for publication

Cabling Topologies

- **Comments have been resolved on the ISO/IEC TR 11801-9910 technical report for MPTL (*modular plug terminated links*):**
 - **A type of ISO/IEC link terminated with a modular plug on one end**
- **The document has been approved for publication.**
- **SC25WG3 is working on providing guidance regarding where and how it is appropriate to use MPTL, DAC, and E2E application specific topologies in place of generic cabling.**

ISO/IEC 24383 Physical Network Security

- **Comments were resolved on the ISO/IEC 24383 for physical network security requirements including guidelines for customer premises in these areas:**
 - **Security planning**
 - **Security systems**
 - **Intelligent building systems**
 - **Administration systems**
- **A 2nd CD for ISO/IEC 24383 will be distributed shortly.**

ISO/IEC 14763-5 Cabling Sustainability

- The NWIP for a standard for physical network *sustainability* requirements has been approved as ISO/IEC 14763-5 and will include guidelines for customer premises in these areas:
 - Eco-friendly cabling materials and cabling systems
 - Equipment and accessories that consider the environment
 - System resilience and lifecycles (installation and operation)
 - Skill sets, training and management of construction technicians
- A team will work during interim meetings to produce a first working draft in time for comment resolution at the next meeting.

Liaison Letters

- **No Liaisons were sent to IEEE 802.3 at the February meeting**

Upcoming Meetings

- **September 21-25, 2020 – Reutlingen, Germany**
- **February 22-26, 2021, location TBD**
- **September 20-24 2021, location TBD**

Questions?

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