ISO/IEC SC25/WG3 Liaison Report

- Customer Premises Cabling –

March 2023

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ISO/IEC SC25/WG3 Meeting

Virtual: 27th February – 3rd March 2023

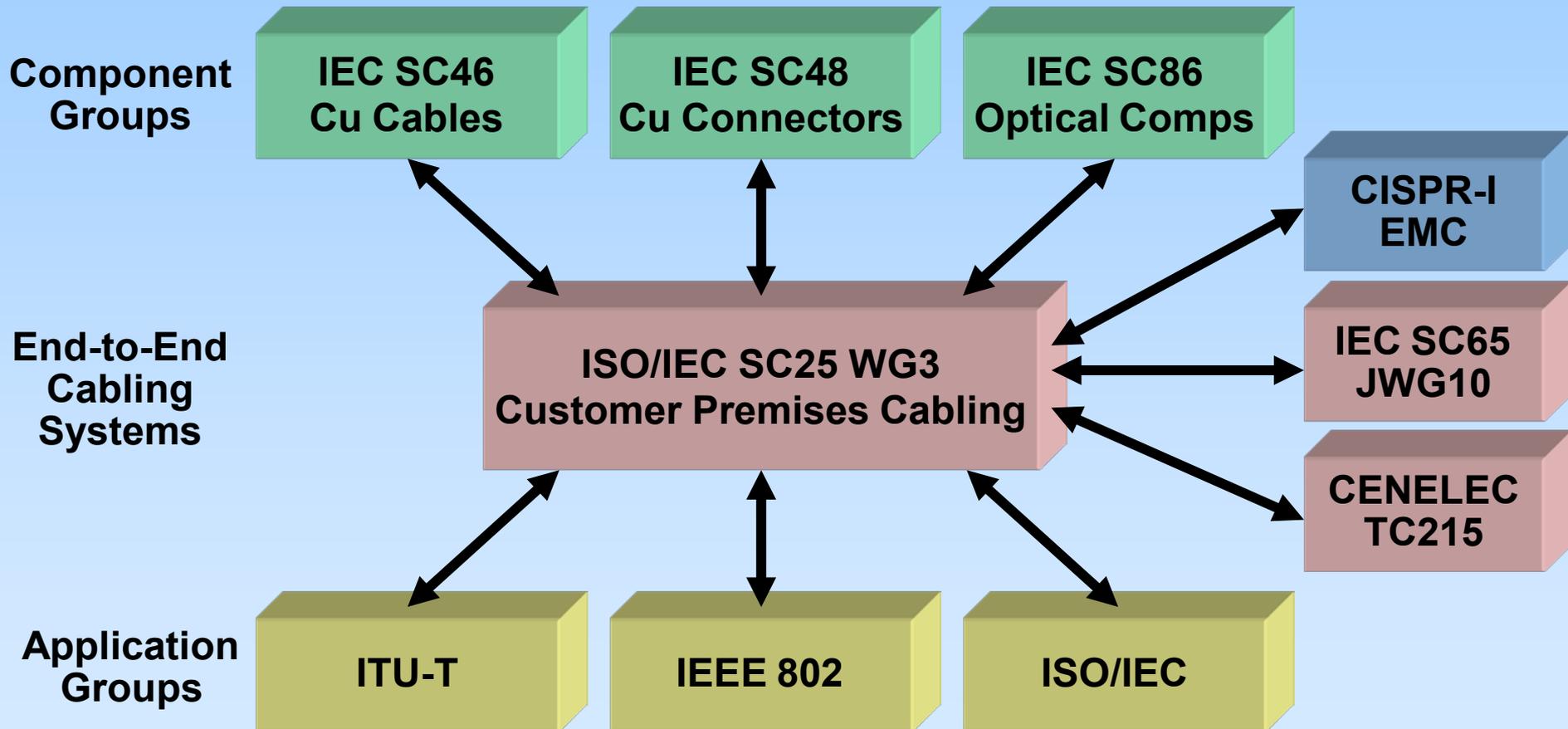## - Customer Premises Cabling -

Key Items:

1. Generic single-pair cabling is being developed, with three new classes of cabling in amendments to the 11801-1 and 11801-6 standards. The -1 moves to a CDV and the -6 a 6th CD.

2. 0.75A cable sharing will be considered only as an engineered solution and limited to use of Cat5 to 8.2 components.

3. A Technical report 11801- 9911 is being prepared to provide guidance on 0.75A legacy classes cable sharing with single pair cabling.

4. A Multidrop TR is project us underway, but will not form part of the 11801-1 series.

5. The Physical Network Security 24383 draft gives requirements for multiple levels of security moves to a 8th CD

6. The Planning and installation standard 14762-2 and Remote powering technical specification 29125 will be updated to included considerations of single pair cabling and 2A remote powering, including cable heating considerations.

7. Cabling Sustainability 14763-5 will progress with to a 3rd CD before the next meeting.

8. The CDV of 14763-3 optical fiber testing document out for ballot.

9. TR11801-9903 Models will be updated to include common and mixed mode parameters with another WD

10. A project has been miniated to provide guidance regarding Salz SNR modeling

11. A project to update the Grounding and bonding standard ISO 30129 moves to a 3rd WD.

63 Participants   **18 Nations & IEEE 802.3 Delegation**

Process Model

Component Groups

IEC SC46
Cu Cables

IEC SC48
Cu Connectors

IEC SC86
Optical Comps

CISPR-I
EMC

End-to-End Cabling Systems

ISO/IEC SC25 WG3
Customer Premises Cabling

IEC SC65
JWG10

CENELEC
TC215

Application Groups

ITU-T

IEEE 802

ISO/IEC

3

Meetings of SC25 WG3

- September 27th February - 3rd March 2023, Virtual
  - Attended by delegation from IEEE 802.3

Publications

IEC has not published any SC25 WG3 documents since their last meeting.

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**

- **Clarification was added that the single pair classes shall support 2A, and guidance for cable sharing with the 4 pair classes 5e-8.2 be provided in a separated Technical Report ISO/IEC 11801-9911 as an engineered solution.**
  - **Further guidance will be added regarding Heating effects at 2A.**

- **A 6th CD of ISO/IEC 11801-6 Amd1 (Distributed Building Systems) was delayed but will be addressed in the next cycle.**

- **A 1st CDV of ISO/IEC 11801-1 Amd1 (General) will be distributed shortly.**

Technical Report on Cable Sharing TR 11801-9911

- **Following the consensus agreement to limit 0.75A cable sharing to engineered solutions only, SC25 WG3 reviewed comments to this technical report to clarifying that this applies to the 0.75A cabling covered by the existing 4P classes covered by 11801-1:2017. and methods of segregation of 2A and 0.75A systems**

- **Not all the comments could be addressed due to lack of time, and interim teleconferences will held to develop the working draft.**
  - **Participation of the IEEE 802.3 delegation will be welcomed in these ad-hocs.**

Multidrop Cabling

- **SC25WG3 is preparing a working draft for a technical report into the use of multidrop cabling.**
    - **Intended to cover 802.3cg and 802.3da.**

- **The report is intended to cover:-**
    - **Multidrop cabling components.**
    - **Implementation guidance.**
    - **Testing considerations.**

- **The project will not form part of the 11801 series as this is not point to point cabling.**

- **An new project leader was nominated and the project will be reviewed at the next meeting.**

ISO/IEC 24383 Physical Network Security

- **Comments were resolved on the ISO/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**
- **A 8th CD for ISO/IEC 24383 will be distributed shortly.**

Single pair integration into ISO 14763-2 and TS 29125

- Preliminary work has been conducted to address the changes that will be needed for single pair cabling within the planning and installation standard ISO 14763-2 and the remote powering technical specification TS29125.

- 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 is in a bundle.
  - Changes to the RP levels of powering class to reflect single pair currents

- Resolution to comments to an updated draft of TS29125 was started and will be completed in an interim Ad-hoc.
- The expected draft of ISO 14763-2 was delayed but a commenting cycle will be completed during interim Ad-hocs.

ISO/IEC 14763-5 Cabling Sustainability

- **The standard for physical network sustainability requirements ISO/IEC 14763-5 work continues to develop 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**

- **The document progresses to 3rd CD.**

ISO/IEC 14763-3 Testing of optical fibre cabling

- A new edition of the fibre optic testing document is being prepared.
- This is intended to clarify and simplify the guidance provided by the prevision edition from the perspective of the installer, and to address consistent guidance with other IEC testing documents.
- The new edition is also evaluating the need reference connectors and other additions.
- A CDV is currently circulating for comments

Other items

- **The project for ISO/IEC TR11801-9903 Modelling is moving forward with another working draft to add mixed mode and common mode parameters to for the 16 port model of a 4-pair system.**

- **SC25 WG3 is moving forward with a project to provide guidance on Salz SNR modeling, to help development of cabling to support existing and future applications.**

   This will be included either as an Annex to TR11801-9903 or as a separate document.

- **Application Specific single pair cabling Technical report 11801-9906, which may include support of 802.3dg, is updating a WD.**

- **A project continues to update the Grounding and bonding standard ISO 30129 and a 3rd WD will be circulated**

Upcoming Meetings

- **October 9-12 2023, in Berlin**
- **March 18-22 2024, Virtual TBD**
- **September 23- 26 2024, Location TBD**
- **March 3-7 2025, Virtual TBD**

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/

Questions?

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