## ISO/IEC SC25/WG3 Liaison Report

## - Customer Premises Cabling –

## **March 2021**

James Withey – WG3 Liaison Officer James.withey@flukenetworks.com

### **ISO/IEC SC25/WG3 Meeting**

### Virtual: 22-26 February 2021

### - Customer Premises Cabling -

### Key Items:

- 1. Generic single-pair cabling is being developed, with three new classes of cabling, in amendments to the various parts of 11801.
- 2. The Industrial cabling standard 11801-3 was approved for publication.
- 3. Progress is made on a multidrop TR, including for Type B 11801-6 applications.
- 4. The Automated Infrastructure Management standard amendment to include PoE considerations moves to publication
- 5. The Physical Network Security 24383 draft adds multiple levels of security.
- 5. Cabling Sustainability 14763-4 progresses to a next working draft.
- 6. A new edition of the 14763-3 optical fiber testing document is being prepared
- 7. The 14673-4 E2E/DAC/MPTL testing document was approved for publication
- 8. TR11801-9903 Models will be updated to include common and mixed mode parameters.

**68 Participants** 

19 Nations

### **Process Model**



## **Liaison Letters**

No Liaisons were sent to IEEE 802.3 at the February meeting

### **Publications**

IEC has not published the 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 11801-3 Industrial
  - 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 and 400m Sub classes
  - T1-B 600MHz 100m (Generic cabling including support of 802.3bp/bw)
  - T1-C Additionally 1250MHz, 100m to present additional generic opportunities
- A 4<sup>th</sup> CD for ISO/IEC <u>11801-1 Amd1</u> will be distributed shortly.
  - A lot of technical changes mostly around transmission performance and current carrying capacity of the various classes.
  - Discussion were held regarding the need for a cable sharing TR, but deferred to the next meeting
- ISO/IEC <u>11801-3 Amd1</u> (Industrial Generic Cabling) has been approved for publication
- A 3<sup>rd</sup> CD of ISO/IEC <u>11801-6 Amd1</u> (Distributed Building Systems) will be distributed shortly.

### **Multidrop Cabling**

- SC25WG3 is to considering a NWIP for a technical report into the use of multidrop cabling.
  - Intended to cover 802.3cg and 802.3da.
- Interim meeting are being held to develop a working draft ready for the September meeting.
- The report is intended to cover:-
  - Multidrop cabling elements.
  - Installation guidance
  - Their use, including, but not limited to, Type B cabling as referenced by the 11801-6 project.

## Automated Infrastructure Management(AIM) systems

- The AIM standard ISO/IEC <u>18598 Amd1</u> has been approved for publication.
  - Includes bundle size, resistance, and other considerations relevant to PoE

## 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
- An 4<sup>th</sup> CD for ISO/IEC <u>24383</u> will be distributed shortly.
- The document has been extensively restructured to fit with other national standards on this topic and will include 4 levels of security:
  - Open (to be based on 14763-2)
  - Restricted
  - Secure
  - Highly Secure

## **ISO/IEC 14763-5 Cabling Sustainability**

- The NWIP for a standard for physical network *sustainability* requirements was approved as ISO/IEC 14763-5 and work continues to 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 documents progresses to a next working draft.

## ISO/IEC 14673-4 Ed.2 E2E/DAC/MTPL Testing

- The 14763-4 document was approved for publication
- This provides test methodology for configurations that provide a plug on one, or both ends.
- Unlike the normal channel test, these plugs are included in the measurement.
- The new tested configurations are:
  - E2E (End to End Link) as per 11801-3 & TR11801-9902
  - DAC (Direct Attach Channel) as per TR11801-9907
  - MTPL (Modular Plug Terminated Link) as per TR11801-9910

# 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 for bi-directional testing and other additions.
- The next CD will be circulated in time for comment resolution at the September 2021 meeting

## **ISO/IEC TR11801-9903 Modelling**

- SC25 WG3 is moving forward with a new edition of this modelling document which provides a full matrix S-parameter model of the differential mode of cabling channels and components.
- The new edition will add mixed mode and common mode parameters to complete the full 16 port model of a 4-pari system.
- The model allows simulation of channel performance based on component vales and is being completed by a joint task group with SC25 WG3, SC46C (cables) and SC48B (Connectors)

## **Upcoming Meetings**

- September 20-24 2021, Virtual TBD
- February 28 March 5 2022, Location TBD
- September 26-29 2022, Location TBD

## **Document Access for 802.3**

- Working with ISO/IEC to provide better access for SC25 WG3 documents
  - 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/

The ISO/IEC SC25 WG3 documents provided to IEEE 802.3 are for the purposes of promoting awareness and coordination of the work of SC25 WG3 and avoiding overlaps and gaps in standardization.

The documents are covered by the circulation and distribution restrictions according to the ISO/IEC Category C Liaison relationship with 802.3.

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

If you have any questions about the documents provided, any other SC25 WG3 documents, or the terms under which they are provided please feel free to contact your liaison officer (james.withey.ieee@gmail.com).

## **Questions?**

James Withey Liaison Officer, IEEE 802.3 - ISO/IEC SC25 WG3 james.withey.ieee@gmail.com