

ISO/IEC SC25/WG3 Meeting

Kyoto, Japan: 25 Feb - 01 Mar 2014

- Customer Premises Cabling -

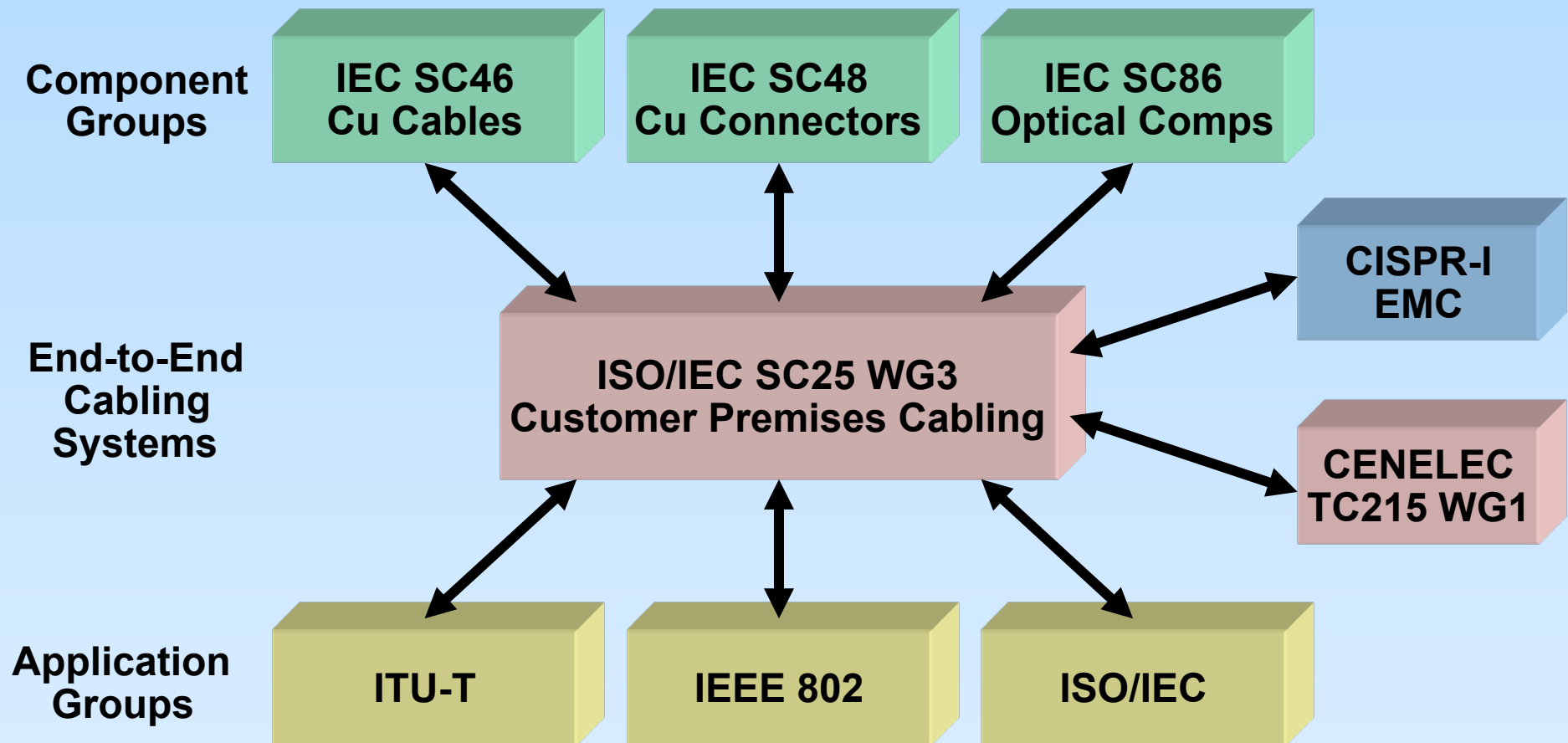
Key Items:

1. ISO/IEC 11801 Ed.3 NWIP approved, changes listed
2. ISO/IEC 11801-99-1 40GBASE-T Cabling now a DTR
3. ISO/IEC 11801-5 Data Centre Cabling to be updated
4. ISO/IEC 14763-3 Ed.2 OF Testing FDIS approved
5. ISO/IEC 29125 being extended to support 802.3bt
6. ISO/IEC 17979-1-1 Twinax Assemblies cancelled
7. SC25 WG3 investigating relevance of *mega-trends*



45 Participants 17 Nations

Process Model



JTC1 Matters

- **NWIPs no longer required to revise existing ISO/IEC stds**
- **study groups established to investigate *mega-trends*:**
 1. **The Internet of Things**
 2. **Smart Cities**
 3. **Energy Efficiency**
- **SC25 WG3 evaluating impact on cabling infrastructure**

ISO/IEC 11801 Edition 3: Generic Cabling

- **NWIP to develop Ed.3 approved unanimously by 20 nations**
- **existing document already re-structured into single family:**
 - **ISO/IEC 11801-1 General Requirements (structure, dimensioning, channel)**
 - **ISO/IEC 11801-2 Commercial Office Environment (unique aspects)**
 - **ISO/IEC 11801-3 Industrial Environment (unique aspects)**
 - **ISO/IEC 11801-4 Residential Environment (unique aspects)**
 - **ISO/IEC 11801-5 Data Centre (unique aspects)**
 - **ISO/IEC 11801-6 Distributed Building Services (unique aspects)**
- **CD planned as output from next meeting in Sep 2014**
- **DIS planned as output from following meeting in Mar 2015**

ISO/IEC 11801 Edition 3: Change Proposals

1. **withdraw generic OF classification scheme (unless a workable alternative proposed made by March 2015)**
2. **OM1 & OM2 fibre types moved to informative annex (Grandfathered)**
3. **SMF specs require amendment (high water peak B1.1 fibre type withdrawn as not used in practice)**
4. **Class I & Class II channels will be introduced & Cat 8.1 & Cat 8.2 components referenced**
5. **Channels with “less than 2 connectors” to be introduced**
6. **DCR unbalance between pairs (currently *ffs*) introduced**
7. **use of cables that do not comply with IEC 61156 specs (e.g. copper-coated aluminium) should be disallowed**

ISO/IEC TR 11801-99-1: 40GBASE-T Cabling

- **draft elevated to DTR in Dec 2013 based on national expert acceptance of 2nd PDTR comment resolutions**
- **DTR circulated for national vote (closes 17 Mar 2013)**
- **no technical changes are allowed in this final draft**
- **Class I definition almost identical to TIA Cat 8 D0.9d**
- **Class II NEXT, ACR-F limits superior to Class I limits**

ISO/IEC 11801-99-1 Deliverables

Performance Requirements
for 30m, 2-conductor Channel

| | |
|-----------------------------------------------------------------|----------------------------------------------------------|
| Legacy Cat 6 _A Components to 500 MHz | Legacy Cat 7 _A Components to 1000 MHz |
| Legacy Cat 6 _A Components to 1,600 MHz* | Legacy Cat 7 _A Components to 1,600 MHz* |
| Class I Channel to 1,600 MHz* | Class II Channel to 1,600 MHz* |
| Tutorial on Channel Capacity, Assumptions, other PHY-related | |

Next Generation
Cabling for 40G

* Upper Frequency of 2 GHz For Further Study

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Data Centre Cabling

- **data centre fabrics to be added to ISO/IEC 11801-5**
- **temp/humidity specs to be added to ISO/IEC 11801-5**
- **DC implementations to be added to ISO/IEC 11801-5**
 - **including resilience/tiers**
- ***modular* DC aspects to be added to ISO/IEC 11801-5**

Power over Ethernet

- **ISO/IEC TR 29125 to be extended to support higher currents being considered by 802.3bt**
- **also agreed to extend installation conditions & heating of cords with thinner conductors**
- **request made for IEC SC46C to introduce DCR unbalance between pairs**
- **request made for IEC SC48B to extend IEC 60512-99-001 connector unmating under load**
- **CENELEC test procedure being considered as the basis for cable heating measurements**

ISO/IEC TR 17979-1-1 Twinax Cable Assemblies

- **intended to support IEEE 802.3 “CR” twinax links**
- **IEC SC46 initiated NP to specify twinax cables**
- **IEC SC48B lack of interest to specify connectors**
- **ISO/IEC TR 17979-1-1 will now be cancelled**
- **relevant parties notified of intent & no response**

Future Meetings

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|-------------------------|-------------------------|------------------------------|
| ISO/IEC SC25 WG3 | 15 - 18 Sep 2014 | Beijing, China |
| ISO/IEC SC25 | 19 Sep 2014 | Beijing, China |
| ISO/IEC SC25 WG3 | 02 - 06 Mar 2015 | San Juan, Puerto Rico |