ISO/IEC SC25/WG3 Meeting

Berlin: 02-06 May 2011

- Customer Premises Cabling -

52 Participants 21 Nations

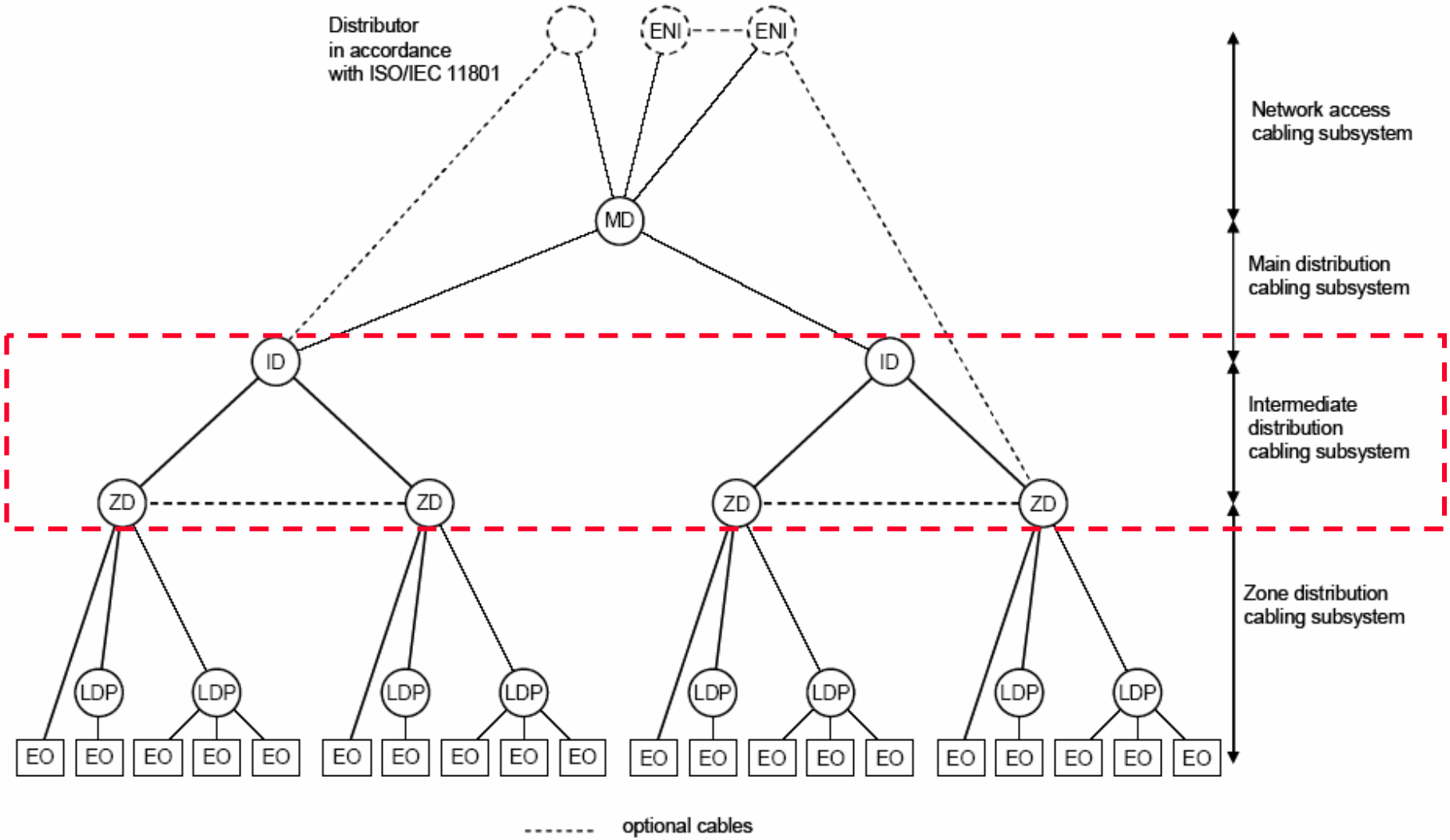
Highlights:

1. ISO/IEC 24764 Data Centre Cabling Am.1
2. ISO/IEC 14763-2 Plan. & Install. final draft
3. ISO/IEC 14763-3 OF Testing Ed.2 planned
4. ISO/IEC cabling stds. being re-structured
5. ISO/IEC 11801 Edition 3 is being planned
6. Higher performance Cu. being modelled
7. 0.5dB optical connector not feasible today
   - specified by 802.3ba for 150m OM4 links

ISO/IEC 24764
Data Centre Cabling

- additional cabling tier being introduced via Am.1
- *intermediate distribution cabling* to provide more flexibility in data centre configurations
- amendments in line with TIA-942-A & CENELEC
- PDAM to be circulated in parallel with a NWIP

ISO/IEC 24764
3-tier Cabling Architecture



ISO/IEC 14763-2
Cabling Planning & Installation

- consolidation of worldwide industry best practices
- to complement ISO/IEC cabling design standards
- 2nd FCD approved; 18 nations in favour, 2 against
- FDIS to be circulated for vote before Oct 2011
- expected to become the definitive industry *handbook*
- could be referenced in many tenders and contracts

ISO/IEC 14763-3
Testing of Optical Fibre Cabling

- 2nd Edition planned due to new test methods
- agreed to consider the following 10 topics:

1. Marginal results: Will avoid ref. to marginal results until detailed analysis of measurement uncertainty completed.
2. Connector End Face Inspection: Will ref. IEC 61300-3-35 and its requirements. Videoscopes are preferred over microscopes (due to eye safety).
3. Connector Cleaning: Will ref. IEC TR 62627 in relevant sections dealing with cleaning of connectors.
4. Reference Grade Test Cords: Will follow IEC SC86B.

ISO/IEC 14763-3
Testing of Optical Fibre Cabling

5. **Referencing Fibre Types/Performance: Fibre types are currently defined using a confusing mixture of OM1-4/ OS1-2 and IEC nomenclature (e.g. A1a). Will adopt the cabled optical fibre categories used in ISO/IEC 11801.**
6. **Testing POF: As POF is used in ISO/IEC 15018 and ISO/IEC 24702, test methods should be defined.** ***Currently insufficient expertise to deal with this.***
7. **Ribbon Connectors: There are currently no reference grade MPO connectors.**

ISO/IEC 14763-3
Testing of Optical Fibre Cabling

8. **Improving Measurement Accuracy: Will prepare a review of commercially available field power meters to evaluate the influence on measurement accuracy.**
9. **Optical RL Issues: Will not introduce RL requirements for optical links and channels, following the response from IEEE 802.3 on the support of 1GBE and higher.**
10. **Chromatic Dispersion: Will not provide any guidance on chromatic dispersion for installed cabling that is not a required test. Decision to be revisited if/when IEEE 802.3 have any requirements for chromatic dispersion for MMF.**

Copper Channel Modelling

- Joint Task Group for ISO/IEC SC25 WG3 + IEC SC46C
- IEC TR 61156-1-3 being developed to define length dependency models for cable IL, RL, NEXT & FEXT
- existing channel models to be extended to at least 2GHz
- new channel models to be 50m, 2 connectors + 2m cords
- existing Cat $6_A/7_A$ component specs to be extrapolated using same characteristics
- comparison of results to be made from 3 different models

ISO/IEC 11801 Edition 3

- major revision of ISO/IEC 11801 Ed.2 is inevitable
  - directives require new edition for any further changes
- OF classification scheme to be deleted (OF300, OF500, etc)
- OM1 fibre type to be removed (considered obsolete)
- POF fibre types to be updated for ISO/IEC 15018
- NWIP to be considered at the next meeting in October

Liaison with IEC SC86

- SC25 WG3 request to reduce MMF connector loss to 0.5dB max judged to be “impossible” due to core mismatch
  - existing limit of 0.6dB @ 97% is for a single fibre
  - tolerance = 15% (NA) + 10% (core size) + 6% (non circularity)
- IEC SC86 needs to improve measurement methods before evaluating any possible improvements in connector loss
  - this could take time!

Future Meetings

ISO/IEC SC25 WG3	27-30 Oct 2011	Melbourne
ISO/IEC SC25	31 Oct 2011	Melbourne
ISO/IEC SC25 WG3	27 Feb – 02 Mar 2012	Venue TBC