# Framework for GMPLS based control of Flexi-grid DWDM networks draft-ogrcetal-ccamp-flexi-grid-fwk-02

CCAMP WG meeting, IETF 87

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# Feedback from joint ITU-T – CCAMP meeting

- Joint ITU-T SG15 Q6 IETF CCAMP meeting was held @ IETF 86
- Questions of the framework were discussed and answer by ITU-T
- Q1.1 Relation between media layer and signal layer:
  - There is only one possible combination: Single Optical Tributary Signal (OTS) over Single Network media channel.
    - Term Optical Tributary Signal defined in new version of G.959
      - "The optical signal that is placed within a network media channel for transport across optical network"
      - "may consist of a single modulated optical carrier or a group of modulated optical carriers or subcarriers"
- Q1.2 Hierarchy in media layer
  - From the management and control point of view, a hierarchy of media channels is considered

# Feedback from joint ccamp-ITU-T meeting

- Q.2 Attributes of link
  - All considered in the draft are OK
- Q.3 resource allocation, different n,m allowed in path?
  - Aspect had not been debated yet ITU
  - During last ITU-T SG-15 meeting G.872 has been discussed and updated to allow for 0.5 in n and m
  - Framework will be aligned with the data plane (G.694.1) until ITU-T finds an agreement between G.694.1 and G.872
- Q.4 impact of signal characteristics on the link information
  - In an environment of only pre-qualified paths, no.
  - Otherwise, impairment aware path computation issues as in WSON apply. Follow the work in WSON.

## Changes in -03 version

- Major clean-up and reorganization of the document
- Sections merged and redundant text removed
- Removed most editorial notes
- Reflect feedback from joint ITU-T CCAMP meeting
- Include reference to latest ITU-T documents
- First section describing Flexi-grid networks
  - Flexi-grid in the context of OTN, Terminology and Network Model
- GMPLS applicability:
  - Section expanded. Focus: how to use GMPLS in flexi-grid networks.
- Control plane requirements
  - 3 major areas: functional requirements, topology dissemination, routing and signaling.
  - Major work needed

### Next steps

- Document is ready for WG adoption
- Reflect updates of ITU-T data plane (e.g. G.872)
- Work on requirements is needed
- More feedback from WG!