Information model for G.709 Optical Transport Network (OTN)

draft-bccg-ccamp-otn-g709-info-model-04

CCAMP WG, IETF 80th Prague

Changes from version .01 to .04

- Version 01 provided information needed to match routing requirements only
- Version 02 completed the picture by also adding information needed to satisfy signaling requirements contained in [OTN-FWK].
- Version 03 adds the distinction between terminating and switching capability
- Version 04 :
  - Update fig. 2 on OTN multiplexing capability accordingly with February version of G.709
  - Update routing req. deleting support for TS granularity advertisement
  - Added two examples of the need of termination/switching capability differentiation.
  - Minor editorial changes

TS granularity information (1)

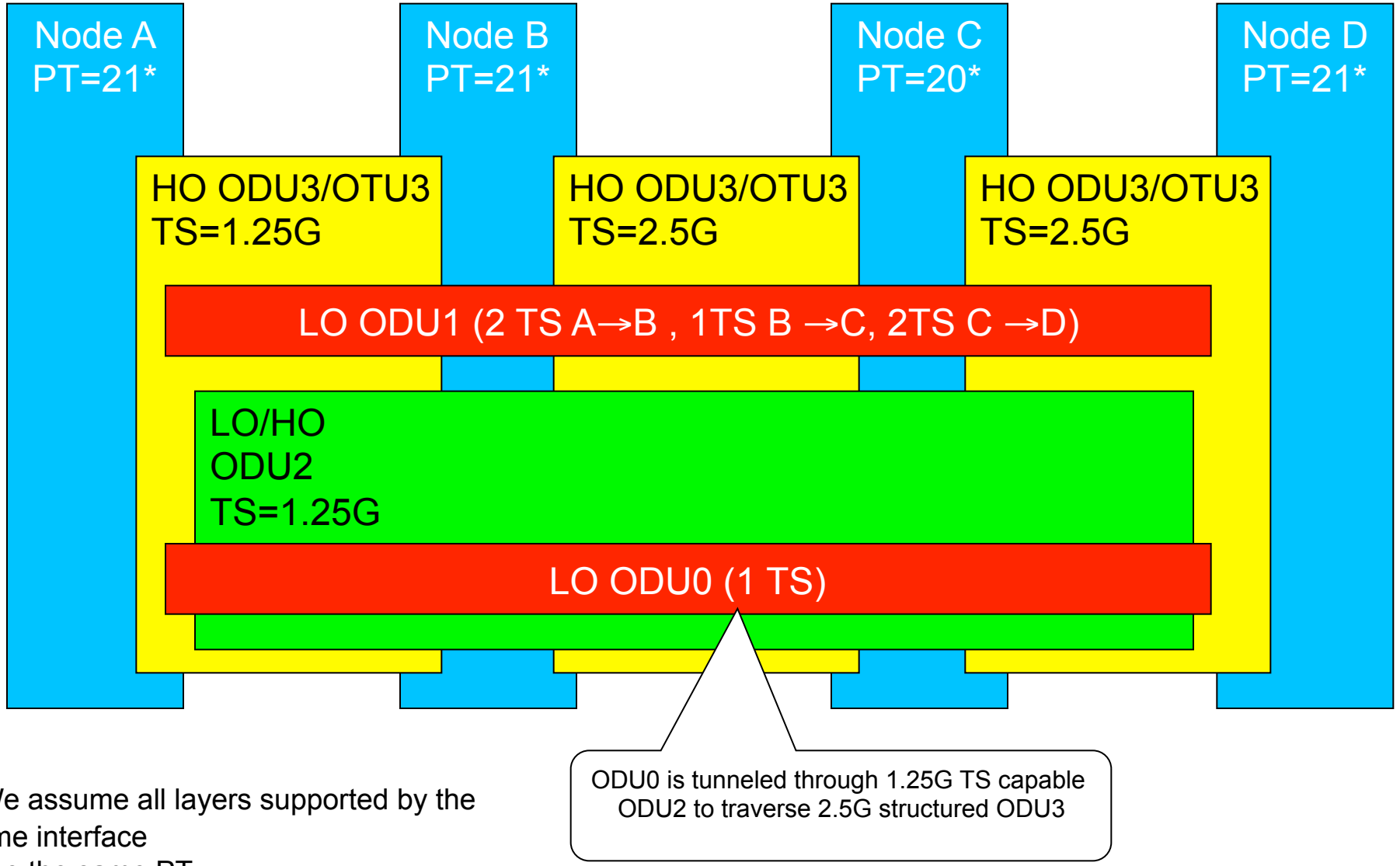
- The actual TS Granularity of a HO OPUk is determined by auto-negotiation via PayloadType (PT)=21/20 at the termination points of the HO ODUk. It is not configured by the control plane
- Support in the signaling
  - TS granularity is one of the parameters needed to correctly configure the physical interface since the number of TS used by an ODU LSP is dependent from it and this affects the label →label for PT=21 has twice the TS number of PT=20.
  - The PT=20/21 offered by the server OPUk to a client ODUj might be signaled E2E in order to permit auto-negotiation when HW auto-negotiation is not supported.

TS granularity information (2)

- Support in the routing
  - Due to the presence of HW auto-negotiation it seems not mandatory to advertise information regarding TS granularity
  - Moreover, TS granularity is not the right parameter since it is dependent from PT →currently removed from routing requirement , to be updated with PT info.
  - It has to be further analyzed whether it is really necessary advertising the PT and if yes
    - Assuming all PTs are equal for all layers supported by the same interface is a safe assumption ?
    - It is enough advertising the static values (i.e.do not advertise the values after negotiation)

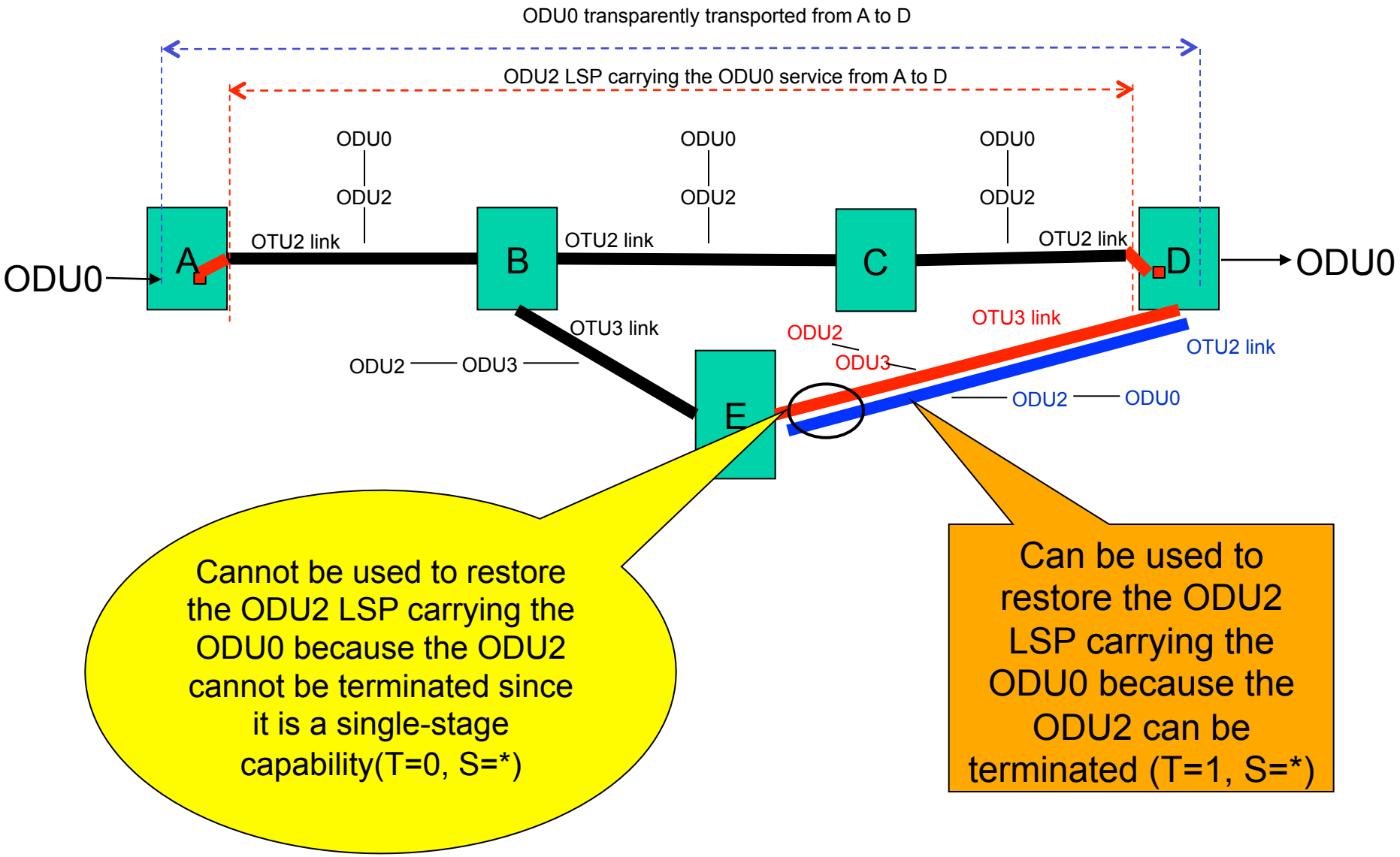
TS granularity information

Multi-stage multiplexing example



*We assume all layers supported by the same interface have the same PT

Termination/switching capability example



Next steps

- To become WG draft
- Refining the draft based on feedback and possible further requirement coming from G.709 and related work