



OSPF-TE extensions for GMPLS Control of Evolving G.709 OTN

CCAMP WG, IETF 80th Prague

Authors/Contributors

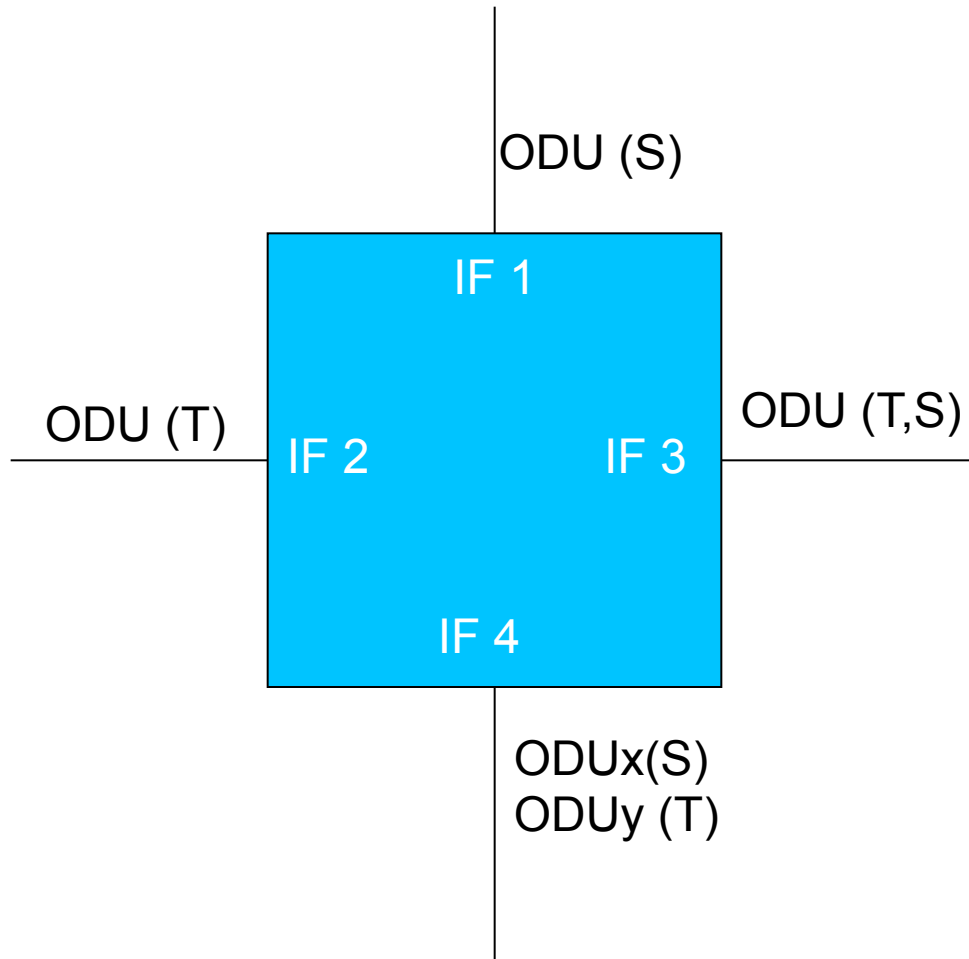
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Switching vs Terminating model



IF1: ISCD

IF2: IMCD

IF3: ISCD+IMCD

IF4:

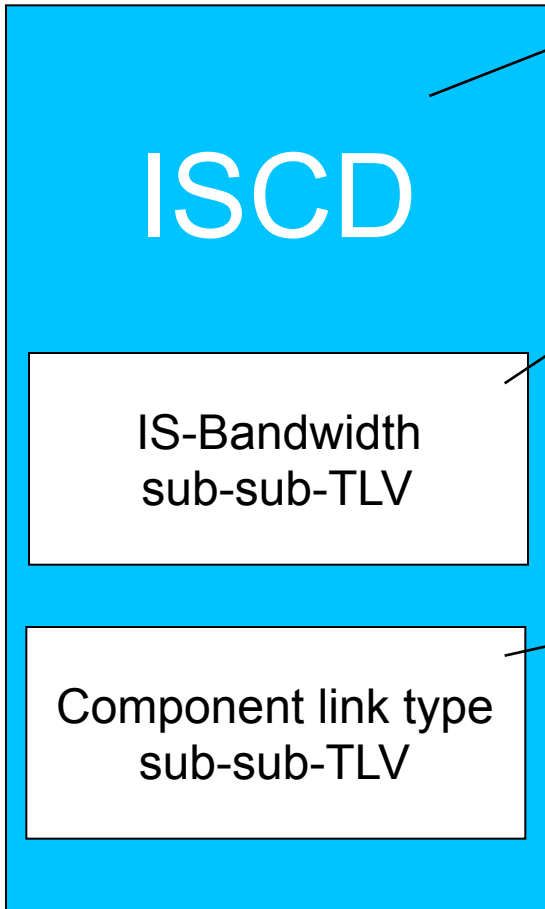
ODU_x → ISCD

ODU_y → IMCD

Procedures

- Switching capability advertisement:
 - 1 ISCD for each ODU (S)
 - ODU (S) – Advertised into the **OTN-ISCD** (new switch cap but ISCD format) via **IS Bandwidth sub-TLV** in the SCSl with signal type.
 - ODU_j - ODU_k (S) relation [**optional**] – Advertised into the SCSl of the **OTN-ISCD** via **Component Link sub-TLV**. (mirror info of the IMCD).
- Termination capability advertisement:
 - 1 IMCD for each Terminable Higher Order ODU including the related hierarchy
 - ODU_k
 - Intermediate ODU layer for FAs
 - ODU_k (T) – Advertised into the **IMCD** (new link type sub-TLV) via **IM Bandwidth Accounting sub-TLV**

ISCD



MAX LSP bandwidth:

- Fixed ODU = Nominal Bandwidth
- ODUflex = 0

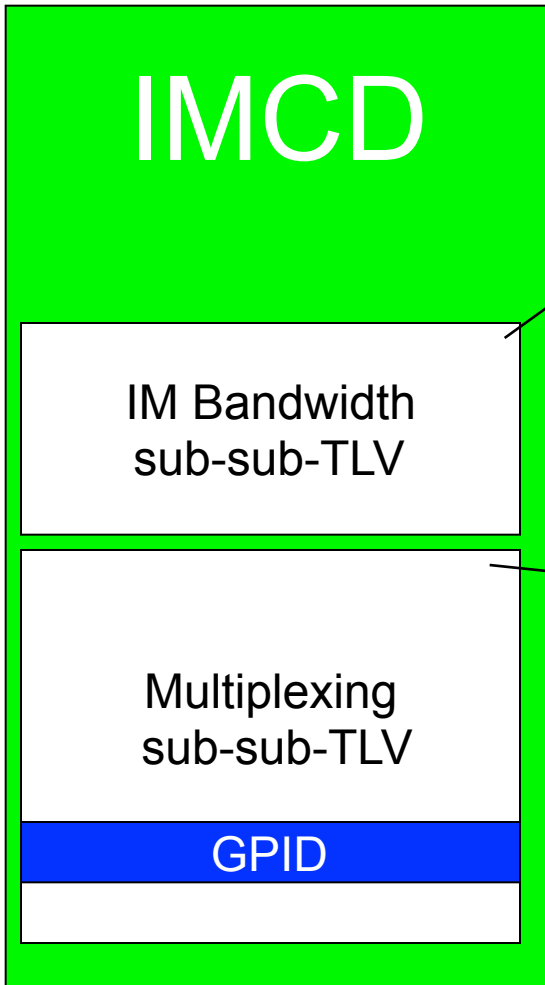
IS-Bandwidth sub-TLV: indicates:

- the signal type unreserved bandwidth expressed in number of containers, per priority (Type=1)
- OR the MAX LSP bandwidth in case of ODUflex (Type=2)

Component link type sub-TLV –

[OPTIONAL]: to be used in case of link bundling and ODU_j being advertised. It indicates the types of number of available related ODU_k (server layer).

IMCD



IM - Bandwidth sub-TLV: indicates the ODUk signal type (without muxing hierarchy) unreserved bandwidth expressed in number of containers.

- G-PID field (same of signaling) indicating the type of ODUk(T) being advertised

Multiplexing sub-TLV: Indicates the multiplexing hierarchy related to the given ODUk.

- 1 GPID for each stage of multiplexing with related bandwidth
No correlation among GPIDs
OPEN ISSUE: multiple GPIDs inside the same IMCD



QUESTIONS ?

THANK YOU