

OSPF-TE Extensions for MLNMRN based on OTN

draft-rao-ccamp-mlnmrn-otn-ospfte-ext-02

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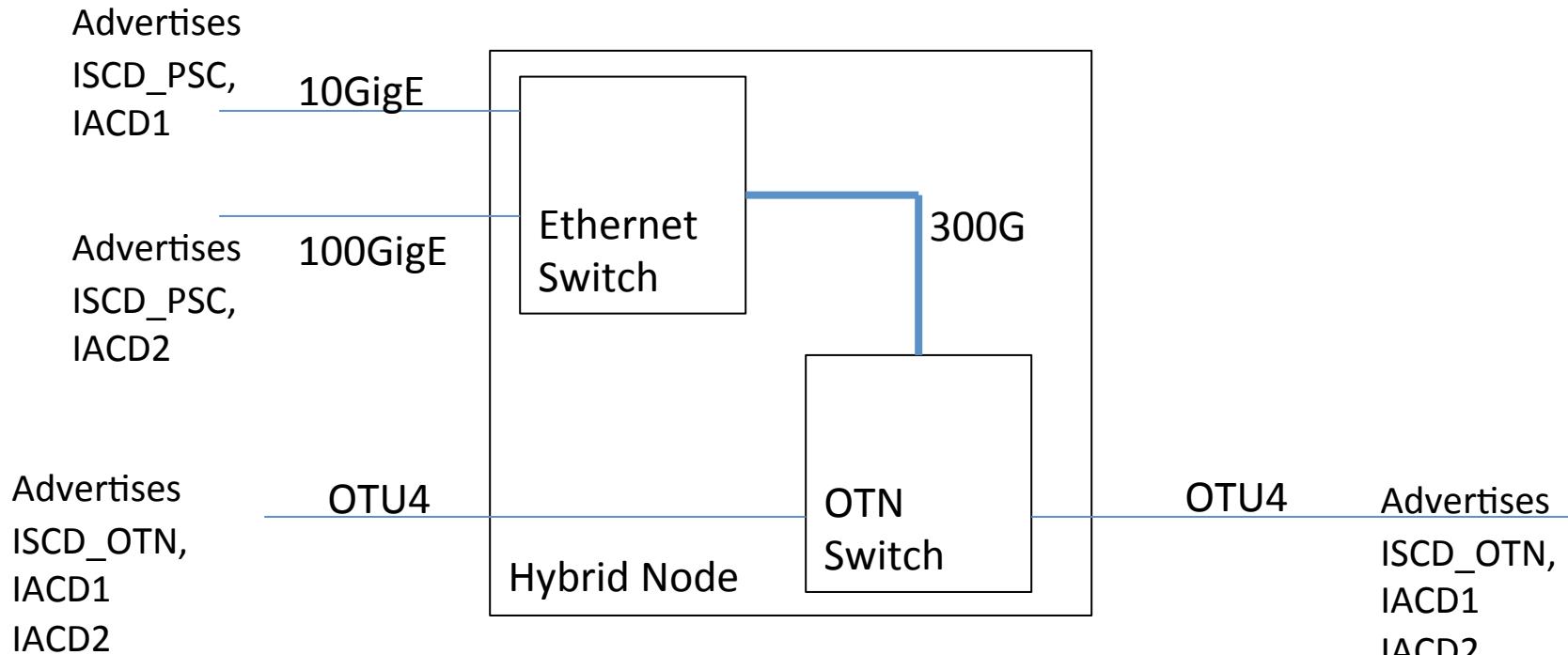
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IETF-87 Jul 31st 2013

Overview

- This draft focuses on the control plane interworking of OTN with other technologies.
- Specifically, identify what information is required to be advertised in OSPF, so as to compute a path that transitions from OTN to other technology namely Ethernet, SONET/SDH, or different multiplexing hierarchy of OTN

Example



IACD1

Upper SwitchCap/EncTyp : PSC/Ethernet
Lower SwitchCap/EncType : OTN-TDM/G.709 ODUk
SCSI : SignalType+Hierarchy ODU2-ODU4 (For 10GigE)

IACD2

Upper SwitchCap/EncTyp : PSC/Ethernet
Lower SwitchCap/EncType : OTN-TDM/G.709 ODUk
SCSI : SignalType+Hierarchy ODU4(For 100GigE)

Changes from 01 to 02 - 1

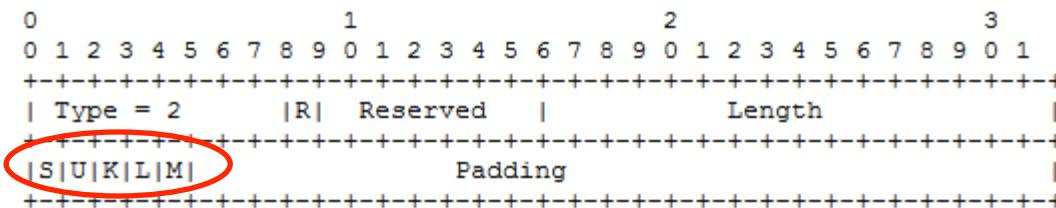
- Layer ID TLV is modified to carry additional information to infer, if the Layer Identification belongs to upper region or lower region

0	1	2	3
0 1 2 3 4 5 6 7 8 9 0	1 2 3 4 5 6 7 8 9 0 1	1 2 3 4 5 6 7 8 9 0 1	1
+-----+-----+-----+-----+	+-----+-----+-----+-----+	+-----+-----+-----+-----+	+-----+-----+-----+-----+
Type = 1	R Reserved	Length	
+-----+-----+-----+-----+	+-----+-----+-----+-----+	+-----+-----+-----+-----+	+-----+-----+-----+-----+
Signal type	Num of stages	TSG	Res
+-----+-----+-----+-----+	+-----+-----+-----+-----+	+-----+-----+-----+-----+	+-----+-----+-----+-----+
Stage#2	...	Stage#N	Padding
+-----+-----+-----+-----+	+-----+-----+-----+-----+	+-----+-----+-----+-----+	+-----+-----+-----+-----+

R bit is used to make sense whether the Layer ID is for Lower region or upper region. 1 means upper region and 0 means lower.

Changes from 01 to 02 - 2

- Added support for SONET/SDH layer Identification



SUKLM bits signifies the presence of SONET/SDH layers and these bits together fully specifies the multiplexing hierarchy.

Next Steps

- Workgroup feedback is welcome