

GMPLS OSPF Enhancement for Signal and Network Element Compatibility for Wavelength Switched Optical Networks

draft-ietf-ccamp-wson-signal-compatibility-
ospf-07.txt

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Updates from previous versions

- Section 2: Added the following clarifying text:
 - [RFC3630] defines OSPF TE LSA using an opaque LSA. This document adds a new top level TLV for use in the OSPF TE LSA: **the Optical Node Property TLV.**
 - The Optical Node property TLV describes a single node. It is constructed of a set of sub-TLVs. There are no ordering requirements for the sub-TLVs. Only one Optical Node TLV shall be advertised in each LSA.
 - All sub-TLVs defined here may occur at most once in any given Optical Node TLV.
 - Resource Block Information Sub-TLV
 - Resource Pool Accessibility Sub-TLV
 - Resource Block Wavelength Constraints Sub-TLV
 - Resource Pool State Sub-TLV
 - Block Shared Access Wavelength Availability Sub-TLV
 - "At most once" means that if there is sub-TLV related information, it should be always included. These restrictions need not apply to future sub-TLVs. Unrecognized sub-TLVs are ignored.

Updates from previous versions

- Added a new Section 3 To discuss Scalability and Timeliness
 - Current Optical Node Property TLV encodes the following list of sub-TLVs:
 - In a rare case where the LSA exceeds the IP MTU limit, then the draft only allows the following sub-division rule (Section 3.1):
 - Each sub-TLV will be packaged as the sole element in an OSPF TE LSA with a unique Link State ID.
- Added text to explain dependency among sub-TLVs and an implication of late or missing sub-TLVs.

Sub-Division Rules (Illustrations)

OSPF TE LSA (LSA ID = 'A')

Optical Node Property TLV

Resource Block Information Sub-TLV

Resource Pool Accessibility Sub-TLV

Resource Block Wavelength Constraints Sub-TLV

Resource Pool State Sub-TLV

Block Shared Access Wavelength Availability Sub-TLV

OSPF TE LSA (LSA ID= 'B')

Optical Node Property TLV

Resource Block Information Sub-TLV

OSPF TE LSA (LSA ID= 'C')

Optical Node Property TLV

Resource Pool Accessibility Sub-TLV

OSPF TE LSA (LSA ID= 'D')

Optical Node Property TLV

Resource Block Wavelength Constraints Sub-TLV

OSPF TE LSA (LSA ID= 'E')

Optical Node Property TLV

Resource Block Wavelength Constraints Sub-TLV

OSPF TE LSA (LSA ID = 'F')

Optical Node Property TLV

Block Shared Access Wavelength Availability Sub-TLV

Next Steps

- Revise document per WG mailing agreement by removing section 3.2 and then Ready for WG LC
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