

Advertising Encapsulation Capability Using OSPF

draft-xu-ospf-encapsulation-cap-01

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Motivation

- **Incremental Deployment of new technologies**
 - ❖ **To facilitate the incremental deployment of the MPLS-SPRING technology, a MPLS-SPRING-enabled router is allowed to transport the MPLS packet through an IP-based tunnel towards the next node segment so as to traverse non-MPLS routers.**
 - ❖ **To facilitate the incremental deployment of the Bit Index Explicit Replication (BIER) technology, a BFR is allowed to send a BIER packet or the payload of the BIER (e.g., an MPLS packet in the BIER-MVPN case) over a unicast IP-based tunnel towards each BFER if the next-hop is a non-BFR.**
- **Non-MPLS based use case for RLFA**

remote nodes

It enables..

associated parameters for that encapsulation (if any) using OSPF.

Proposed Solution

Encapsulation Capability TLV.

- The Value field of the Encapsulation Capability TLV contains one or more Encapsulation Type sub-TLVs with each indicating a particular encapsulation format and the associated parameters (if any) for that encapsulation, that the advertising router supports.
- This document currently defines the following Encapsulation Types:
 - MPLS-in-IP tunnel [[RFC4023](#)]
 - MPLS-in-GRE tunnel [[RFC4023](#)]
 - MPLS-in-L2TPv3 tunnel [[RFC4817](#)]
 - MPLS-in-UDP tunnel [[I-D.ietf mpls-in-](#)]
 - MPLS-in-IP tunnel with IPsec Transport Mode [[RFC5566](#)]

Next Steps

- **Describe Remote Loop-Free Alternates (RLFA) use case.**
- **Review and Extend the list of Encapsulation Types.**
- **Define a sub-TLV of the Encapsulation Type sub-TLV to indicate parameters of certain Encapsulation Types (e.g., IP Address, GRE key).**
- **Looking for more reviews and suggestions from WG**

Thank You!