LISP Trans in MPLS network

draft-hu-lisp-mpls-trans-00.txt

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MPLS

- Support Traffic Engineer, QoS, VPN service
- Widely deploy in current network
- considered that the label-based switching technology can be used to deploy the LISP protocol
LISP deployment in MPLS network

ITR : IP-in-IP encapsulation

PE1: MPLS label encapsulation

End-to-end MPLS solution between PE1 and PE2
motivation

• IP-in-IP encapsulation + MPLS label encapsulation
  - too complex
  - Low encapsulation efficiency
  - Low bandwidth transport efficiency

• End-to-end MPLS deploy only between LER1 and LER2
  - ITR and ETR doesn’t run MPLS
End-to-end MPLS deployment between ITR and ETR

ITR /PE: ITR acts as PE, and does new label encapsulation

End-to-end MPLS solution can be deployed between ITR and ETR
Simplify the LISP data packet by a new MPLS label encapsulation format

IP-in-IP + MPLS encapsulation

New label encapsulation
Outer label

• Point to point LSP tunnel is established between ITR and ETR
• LSP tunnel and out label distribution by MPLS signaling protocol
Inner label

- identify the MPLS packet which encapsulates LISP type packet
- identify the source RLOC of the LISP packet

- be distributed by MP-BGP protocol
- AF of MP-BGP should be extended
Next Steps

- Comments and feedback from LISP group
Q&A

Thanks!