draft-kompella-mpls-larp-08

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• Extension to ARP to distribute MPLS labels for v4 and v6 host addresses.
• Positioned to be used in servers that doesn’t want to run routing protocols but want to participate in MPLS fabric
• In the fabric, tunnels could be created using any signaling protocol such as LDP, RSVP, BGP-LU or SPRING.
• Provision for optional attributes via TLVs in LARP request/response.
• Draft defines the “CT” TLV as an optional attribute.
• CT TLV is of length 4 bytes and value carries the CT attribute as defined in I-D.kaliraj-idr-bgp-classful-transport-planes.
• CT TLV allows LARP-client to request multiple labels to a given destination, each over a tunnel in the transport class given by CT (plus an “uncolored” label)
• LARP Server on receiving the request finds or creates a tunnel to the destination routed over the CT transport plane.
• LARP Server allocates label L inserts an entry in LFIB to swap L to this tunnel and sends same in reply.
Enabling MPLS across DCs
• Enabling MPLSoMPLS across computes
OTHER DEVELOPMENTS AND FUTURE WORK

• Linux prototype for basic LARP server and client is available.
• Prototype for Tungsten fabric/Contrail with Openstack to enable MPLSoMPLS overlay using LARP is in progress.
• Extensions to linux prototype for metric and color support.

• Protocol details need to be ironed out
  • Multihomed servers (L-ARP clients)
  • Label withdrawal and persistence
  • Modes of triggering proxy label advertisement via LARP.
  • Working with other server side protocols to determine reachability.
Comments and suggestions are welcome

Thank you