Requirements and Framework for Unified MPLS Sub-Network Interconnection

draft-allan-mpls-unified-req-frmwk-01

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Recap - Problem Space

• MPLS has numerous operating models or “profiles” that can be interconnected or stacked
  – *infrastructure*: topology driven, traffic engineered, transport
  – *services*: VPLS, VPWS, BGP L3 VPN, BGP MPLS VPN
  – Both with a variety of control plane/management plane options

• Stacking MPLS has typically seen a logical decoupling of the layers
  – Minimizes operational impacts and permits “separation of interest” between infrastructure, operations and services
    • For example: overlaying BGP VPN on hop-by-hop LDP just “works”
    • This has permitted process “re-engineering” by operators

• What has been *missing* to date is the same logical decoupling and “separation of interests” for peer interconnect
  – Where TP subtending a full MPLS network is simply one use case

This is what the *Sub-Network Interconnect draft* sets out to address
Changes Since Last Revision

• Comments from IETF 82 and received privately addressed
  – Security section given some “meat”
  – Numerous clarifications
    • With respect to peering models
    • Mp2mp and VPMS
    • Entropy labels
  – Further work identified in the management arena

• Observation: either negotiation or configuration of E2E OAM seems to be the high running issue identified needing further standardization
Next Steps

• Continue to collect comments
  – Explicitly seeking WG feedback!
    • Have we identified all the issues?

• Identify gaps in current work to produce a “complete solution”