Requirements and Framework for Unified MPLS Sub-Network Interconnection

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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"