SEAMLESS SR
draft-hegde-spring-mpls-seamless-sr
IETF 109

Shraddha Hegde, Juniper Networks
Chris Bowers, Juniper Networks
Alex Bogdanov, Google
Arkadiy Gulko, Refinitiv
Xiaohu Xu, Alibaba Inc.
Jim Uttaro, AT&T
Luay Jalil, Verizon
Mazen Khaddam, Cox communication
Andrew Alston, Liquid Telecom
Agenda

- Updates from -00 revision
- End-to-End low latency use case
- Next Steps
Updates from -00 revision

- Inter-domain flex-algo with BGP-CT
- Color-only policies
- Data sovereignty use case
- Interconnecting IP fabric DCs use case
- Translating transport classes across domains
- Automatic creation of Transport Classes
Automatic creation of Transport Classes

- Border routers auto-derive Transport Class Route Target from Color associated with Transport Tunnel
- Based on BGP-SR-TE
  - 32-bit policy color in SR policy NLRI translates to 32-bit Transport Class RT
- Based on Flex-algo
  - 8-bit algorithm translates to 32-bit Transport Class RT
- Based on PCEP created tunnels
  - 32-bit Color of SR policy Identifiers TLV translates to 32-bit Transport Class RT
E2E LOW LATENCY ROUTING

- Intra-domain low latency paths via Flex-algo/SR-TE/RSVP

**Problem:**
- Find lowest latency end-to-end path among multiple paths to the same destination.

**Solution:**
- Define a low-latency Transport Class
- Accumulate intra-domain latency metric in BGP
- BGP extension to carry accumulated latency metric in AIGP sub-TLV
- BGP best path selection at ingress based on accumulated latency metric
Next steps

- Request review and comments
- Request WG adoption
Thank you