

SEAMLESS SR

draft-hegde-spring-mpls-seamless-sr

IETF 109

Shraddha Hegde, Juniper Networks

Chris Bowers, Juniper Networks

Alex Bogdanov, Google

Arkadiy Gulko, Refinitiv

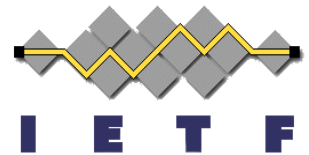
Xiaohu Xu, Alibaba Inc.

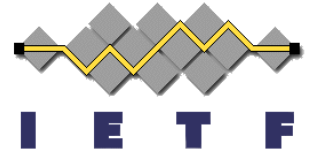
Jim Uttaro, AT&T

Luay Jalil, Verizon

Mazen Khaddam, Cox communication

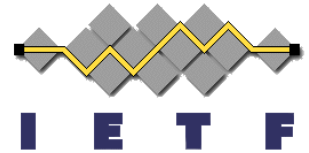
Andrew Alston, Liquid Telecom





Agenda

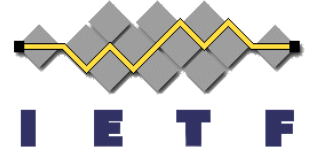
- Updates from -00 revision
- End-to-End low latency use case
- Next Steps



Updates from -00 revision

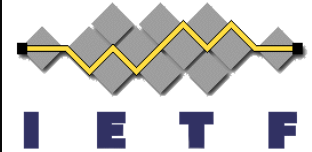
- Inter-domain flex-algo with BGP-CT
- Color-only policies
- Data sovereignty use case
- Interconnecting IP fabric DCs use case
- Translating transport classes across domains
- Automatic creation of Transport Classes

Automatic creation of Transport Classes

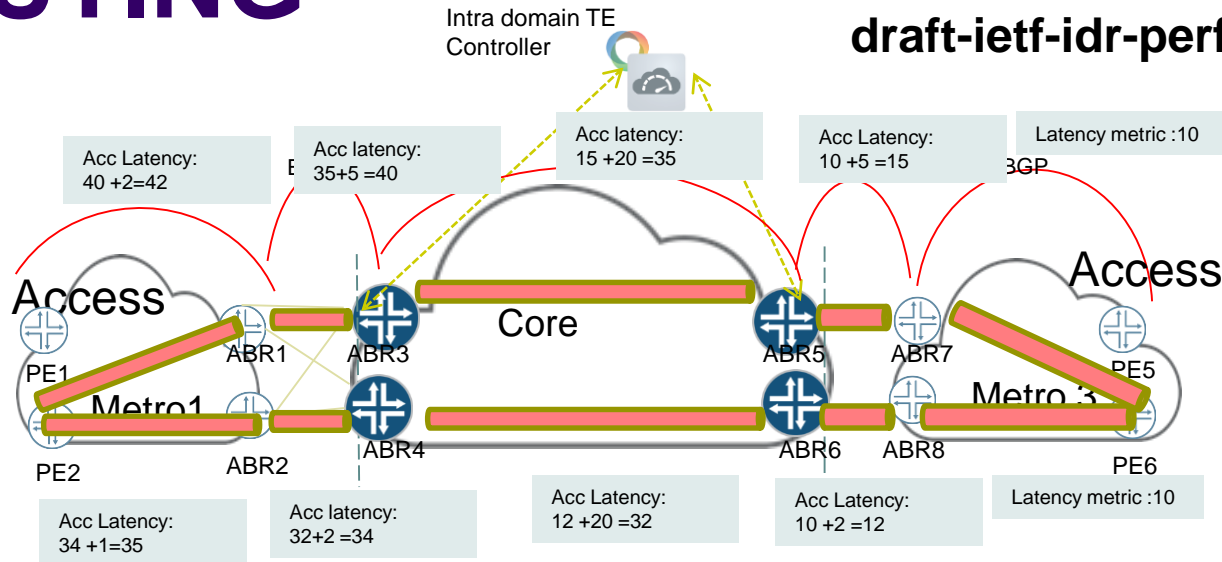


- Border routers auto-derive Transport Class Route Target from Color associated with Transport Tunnel
- Based on BGP-SR-TE
 - 32-bit policy color in SR policy NLRI translates to 32-bit Transport Class RT
- Based on Flex-algo
 - 8-bit algorithm translates to 32-bit Transport Class RT
- Based on PCEP created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

E2E LOW LATENCY ROUTING



draft-ietf-idr-performance-routing



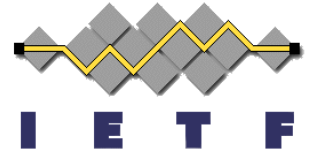
- Intra-domain low latency paths via Flex-algo/SR-TE/RSVP

Problem:

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

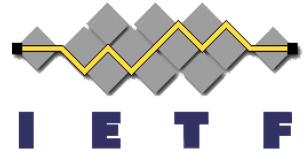
Solution:

- 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