Deterministic Networking Application in Ring Topologies

draft-jiang-detnet-ring-01

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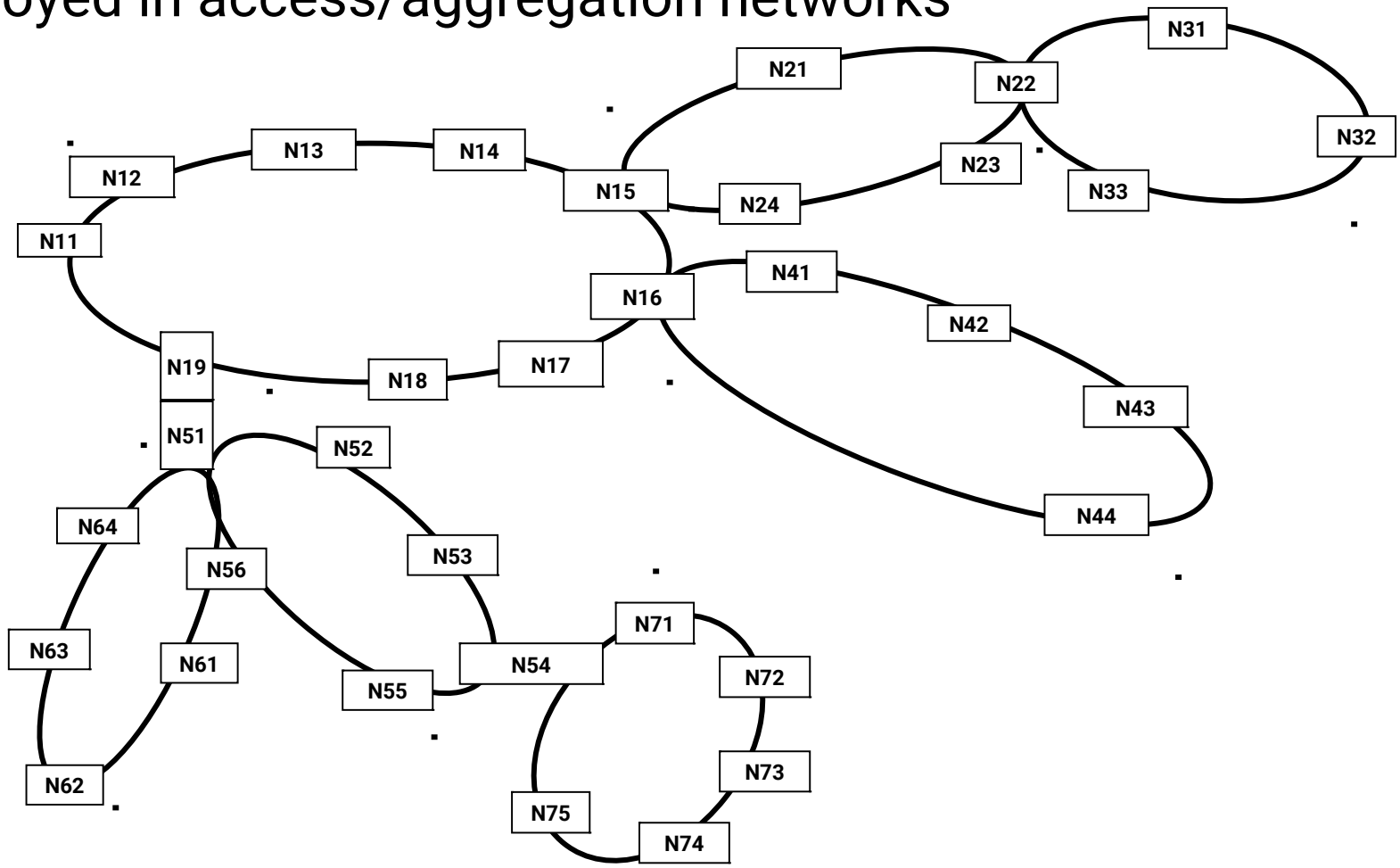
Backgrounds

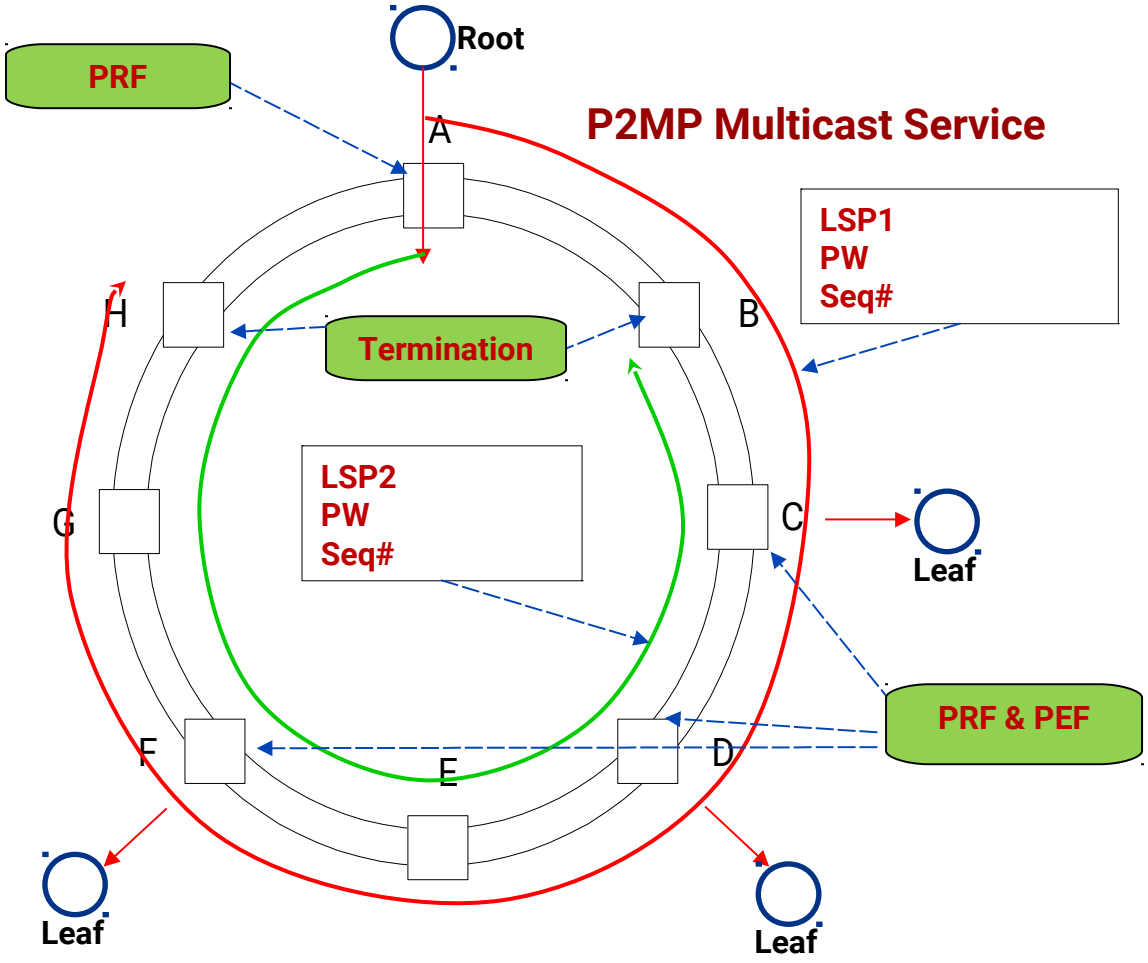
- Ring topologies have been popular and typically deployed in access/aggregation networks



Updates in Version 01

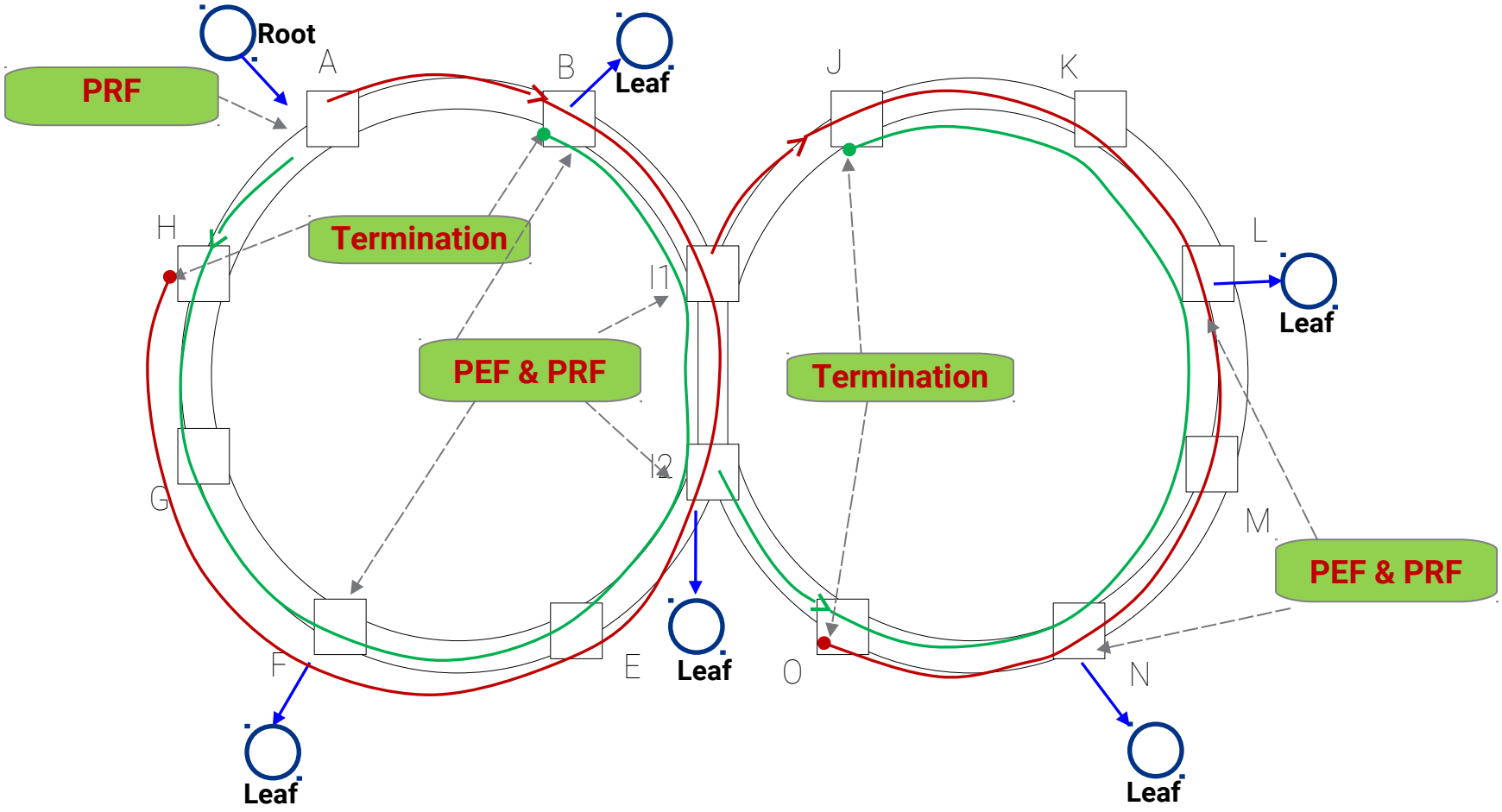
- Aligned with the newest Detnet Architecture and Data plane (detnet-dp-sol-mpls)
  - Using PRF & PEF functions
- Converged to a single solution
  - Don’t care about internal locations of filtering & replication, they can be on input interface, output interface or centrally implemented

Multicast ring in Detnet



Interconnection of Rings

P2MP Multicast Service



Summary & Next Step

- Multicast in a Detnet ring is highly resilient & efficient
  - ✓ High resiliency of Detnet
  - ✓ No matter how many leaf nodes, only 2 copies of packets are sent, one for CW, and one for CCW
- Keep aligned with ongoing Detnet WG work and fill any gaps
- The authors would like to request more WG feedbacks

Thank You