draft-boutros-bess-elan-services-over-sr-04
IETF 117

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History/Background

- Draft was 1st presented in IETF 109 Online, November 2020.

- SR-Optimized ELAN with data-plane MAC learning:

  - **Maintains** the PW **P2P semantics** between 2 endpoints by presenting the endpoint by another SID under the service SID in the SID list.
  - Solves the **Active/Active Redundancy** and multipathing using Segment Routing **anycast** SIDs.
  - **Improves** the PW **scale** issue (e.g., 10,000 services will be presented by only 10,000 Service SIDs in both Control and Data Plane, regardless of how many endpoints participate in the service)

Benefits of SR-Optimized **ELAN**

- **Simpler** and much better **control plane** scale over legacy PWs, by splitting the endpoint ID from the service ID and representing them by 2 SIDs in the SID segment list.
- Maintain **data-plane MAC learning benefits** such as fast **convergence**, fast **MAC move**, and **scale** through **conversational learning**.
- Bring the benefits of **A/A multihoming**, **multipathing**, and **ARP suppression**.
- **Leverage** the benefits of **Segment Routing anycast SID** for redundancy and **fast convergence**, and to discover nodes sharing the same anycast SID to perform DF election.
- **Eliminate** the **need for** any **overlay fast convergence**!

Implementation and interest Updates

- We have a Broadcom implementation of many parts of the draft.
- We will be starting the process of trying the solution in providers’ labs.
- Asking for WG adoption!

Thank You