~~GMPLS ENNI~~

Virtual Links Enhancements for the Overlay Model

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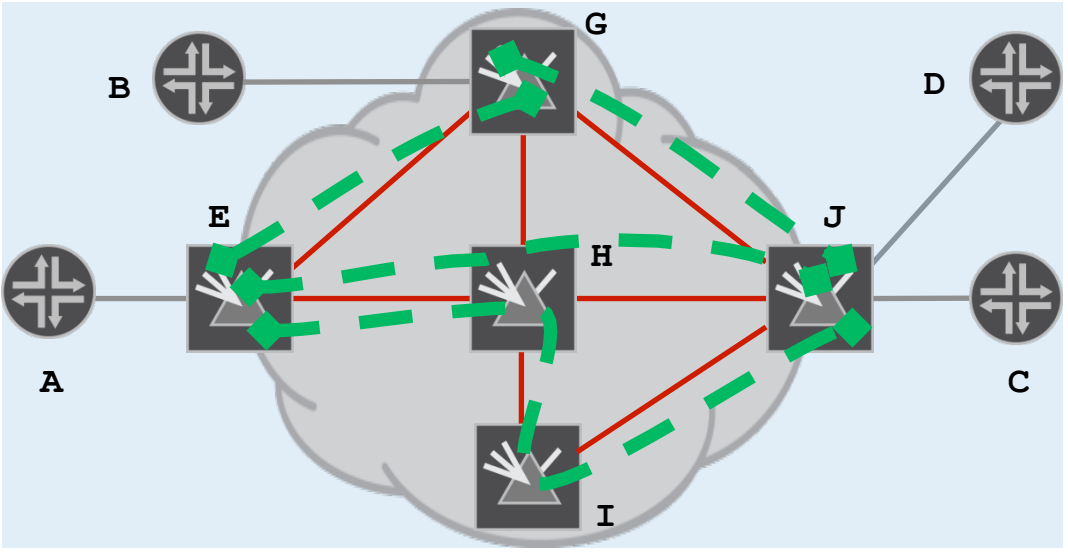
Status

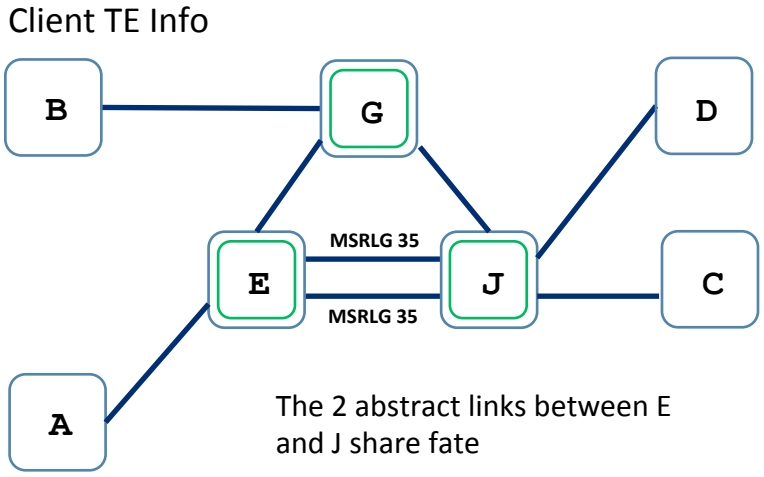
- [DRAFT-ENNI] - Document History
  - Introduced as UNI-BCP; renamed ENNI by IETF 84.
  - Progress stalled because of the absence of a framework/ architecture document.
- The advent of [DRAFT-TE-INFO-EXCHANGE]
  - Subsumes all the work done by [DRAFT-ENNI] so far.
  - [DRAFT-ENNI] is set to expire in Mar ’14.
  - New Architectural Tools: Abstract Link and Abstraction Layer Network
    - Enables clients to compute and traffic-engineer end-to-end paths across the server network domain.
  - Applications of the “Abstract Layer Network” model
    - Would be detailed in [DRAFT-TE-INFO-EXCHANGE] or in some follow-up documents

Applications of the <Abstract Layer Network> Model

Connecting Routers across an Optical Server Domain

- Use-Case: Setup full wavelength capacity connections across an optical server domain.
  - Technology transition could be on the edge or on the core.
- Abstract Links are setup (via policy) based on the possibility of paths in the optical server domain.
- Abstract Links are populated into the Abstraction Layer Network's TED via IGP
- The end-to-end Overlay connection (Abstraction Layer LSP) is a Lambda LSP (LSC switching-type, Ethernet Encoding-type).
- The Server Lambda LSP catering to the abstract link is dynamically instantiated when the setup request for the Abstraction Layer LSP reaches the server border node.

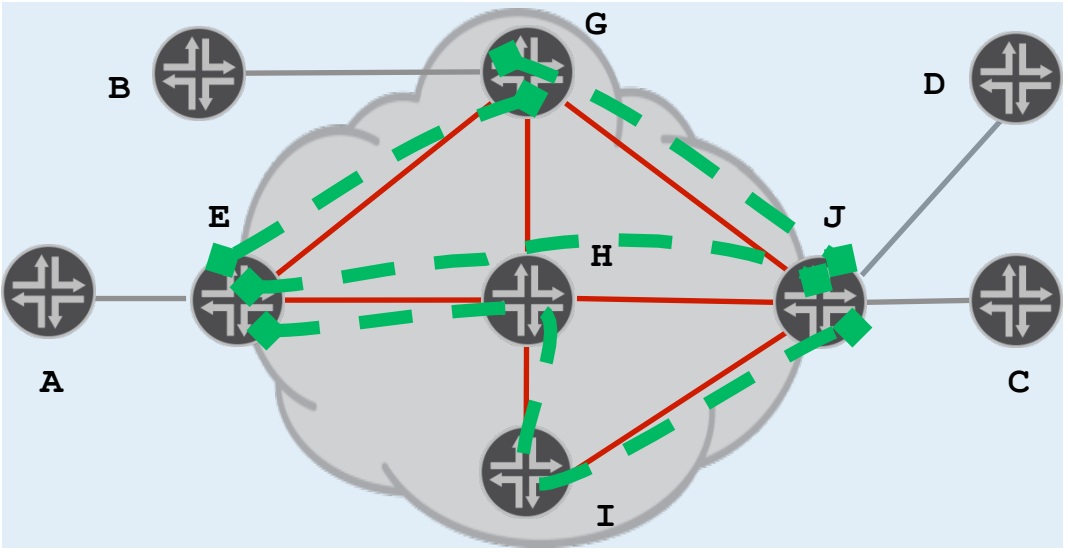


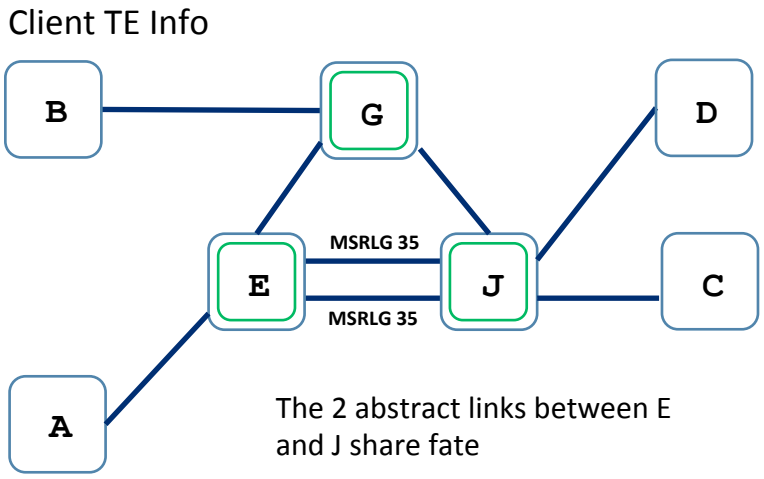


Connecting Routers across a Packet Server Domain

- Use-Case: Setup L2 VLAN connections across a packet server domain.
- Abstract Links are setup (via policy) based on the possibility of paths in the packet server domain
- Abstract Links are populated into the Abstraction Layer Network's TED via BGP-LS

- The end-to-end Overlay connection (Abstraction Layer LSP) is an L2 VLAN LSP (EVPL switching-type, Ethernet Encoding-type).
- The Server Bidirectional Packet LSP (could be an associated bidirectional LSP) catering to the abstract link is dynamically instantiated when the setup request for the Abstraction Layer LSP reaches the server border node.





Questions?