draft-ali-ccamp-rsvp-te-include-route-03.txt
CCAMP – IETF 86 – Orlando
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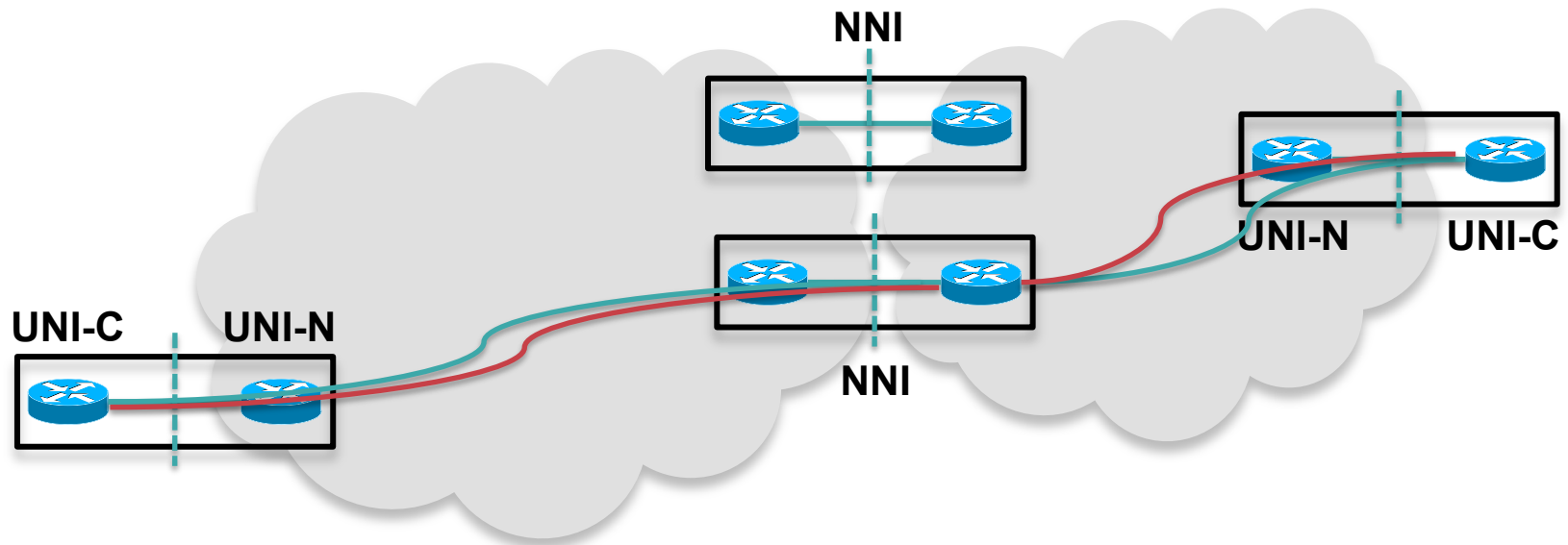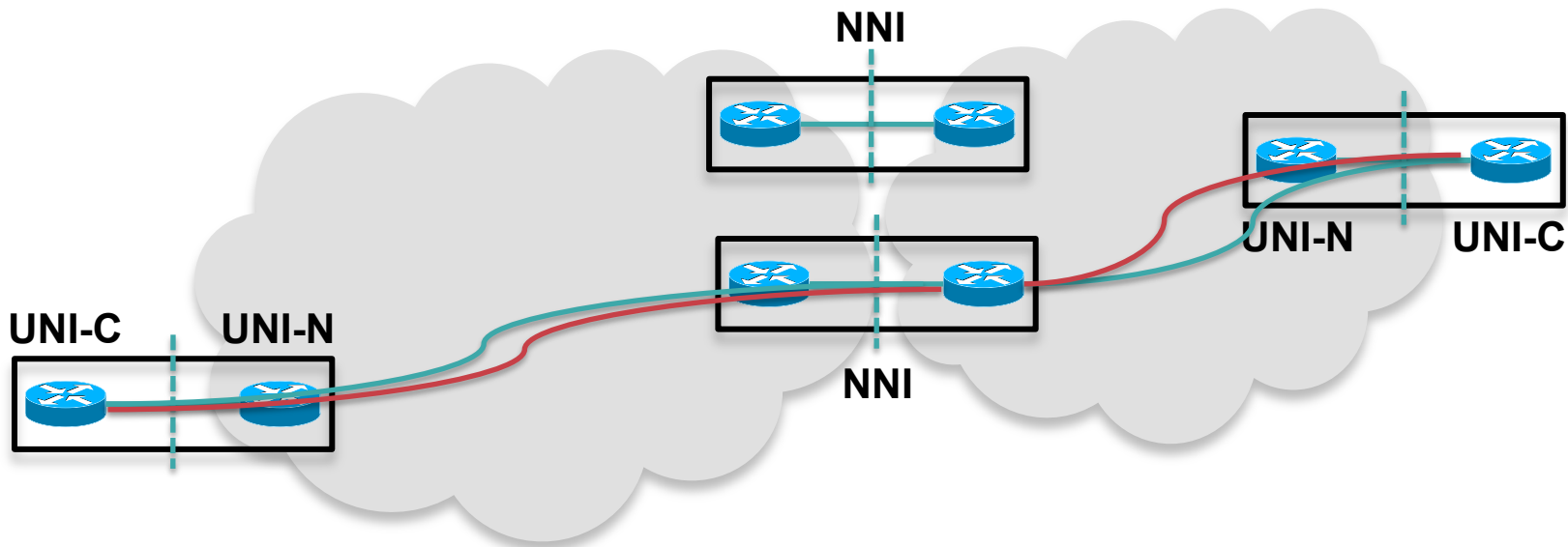|	
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Overall Problem Space

- A TE headend may have no visibility across UNI or NNI boundarys
- This draft is to allow such a headend to request commonality between paths

Homogeneity and Fate-sharing

draft-ali-ccamp-rsvp-te-include-route

- Requirement is to have two LPSs to follow same route:

  ➤ Fate Sharing.

  ➤ Homogeneous Attributes: E.g., when LSPs are bundled together, it is often required that they have same delay and DV characteristics.

- The ingress node requires certain nodes, links, or path of another LSP to be explicitly included

  ➤ This derives, for instance, from an overall link diversity plan

Homogeneity and Fate-sharing(2)

- Ingress node may lack sufficient topological knowledge

- It there must form an ERO with loose hop(s)

- It cannot divide those loose hop(s) into a proper sequence of strict or a sequence of finer-grained loose hops (e.g., in inter-domain and GMPLS overlay networks).

Homogeneity and Fate-sharing: Solution

- Explicit Inclusion Route Subobject (EIRS)

  ➢ A new ERO subobject type

  ➢ Indicates an inclusion between a pair of explicit or abstract nodes

- Encoding and processing rules are similar to Explicit Exclusion Route Subobject (EXRS) subobject of ERO defined in [RFC4874],

  (the exception being include vs. exclude semantics)

- Subobjects supported by XRO/ EXRS are supported

  i.e., inclusion of links, nodes, tunnel / LSP, unnumbered interfaces, etc.

  In this draft, dropped SRLGs

SRLG Issues

- We naïvely incorporated all the subobjects of the XRO

  ➢ Ran into difficulty writing the processing rules for SRLGs

- A processing node may not be able to fully expand a loose hop an explicit ERO

  ➢ In such an event it will need to insert another loose hop

  ➢ What if any SRLGs should it include?

- The authors do not find inclusion of an SRLG as needed functionality

- Happy to entertain the opinions and processing rules that others may want to supply

Next Steps

- Authors consider draft mature enough to call for WG adoption