draft-ppsenak-ospf-te-link-attr-reuse-02
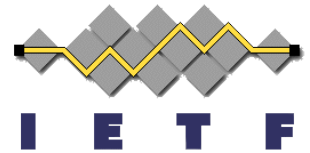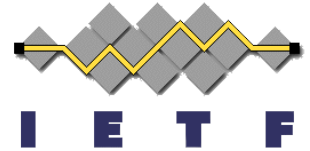
Peter Psenak, Cisco
Acee Lindem, Cisco
W. Henderickx, Nokia
J. Tantsura,
H. Gredler, RtBrick

I E T F

Draft Status

- Presented at IETF 93, IETF94, IETF95
- Problem is now understood and acknowledged by the larger community
- Good discussion already taken place on the WG list

ISIS Applicability

- The problem has been acknowledged in ISIS as well

- Three implementations have been tested to find out what ISIS sub-TLVs would be interpreted by an existing RSVP head-end as meaning that RSVP is enabled on a link.

  - Superset of the sub-TLVs that trigger RSVP in TLV#22 across implementations was:

    - 3, 9, 10, 11, 14, 20, 21, and 22.
    - The presence of TLV#138 (the SRLG TLV for ISIS) also triggers inclusion of the link in the CSPF for RSVP.
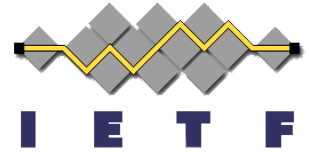
Application Specific Link Attributes
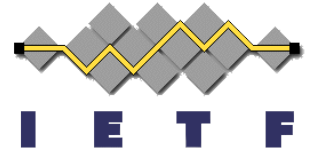
- Draft originally discussed the problem of link attributes advertisement for TE application versus rest of the applications.

- In some case we may need to advertise different value of the same link attribute for different applications.
    - SRLG is an example
    - More applications may come in the future

- It would make sense to address this problem in the draft as well.

Application Specific Link Attributes - OSPF
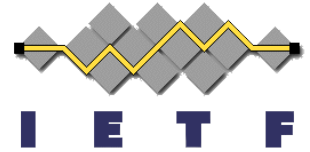
- TE Opaque LSA will remain dedicated to RSVP/TE as defined in RFC3630

- Extended Link LSA/ Extended Link TLV is used to advertise link attributes for all apps other then RSVP/TE

- To advertise per application value we have options:

  a. Define per application sub-TLV on top of generic sub-TLV for any link attribute.

  b. Define an optional sub-sub-TLV that is advertised with the link attribute sub-TLV and describes which applications are allowed to use this value of the link attribute (e.g. bitmask of applications)

Application Specific Link Attributes - ISIS

- ISIS does not have a dedicated RSVP/TE container similar to TE Opaque LSA.
  - Although existing TE Link attributes have been defined in the context of the TE/RSVP/GPLS
- Add optional "application bitmask" advertised with the link attribute.
- Use existing TLVs for all apps
  - RSVP/TE would be one of the application represented in the bitmask
  - Backward compatibility issue exists before all routers understand the "application bitmask" advertisement.
- Alternatively define a new set of TLVs
  - keeping the existing ones only for TE/RSVP/GMPLS
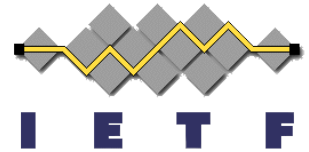
Next Steps

- Make draft-ppsenak-ospf-te-link-attr-reuse-02 an OSPF WG document

- Draft in ISIS WG is needed