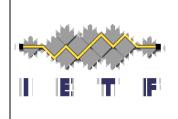# draft-ppsenak-ospf-te-link-attr-reuse-04

Peter Psenak, Cisco
Acee Lindem, Cisco
Les Ginsberg, Cisco
W. Henderickx, Nokia
J. Tantsura,
H. Gredler, RtBrick
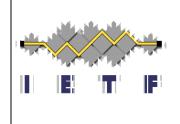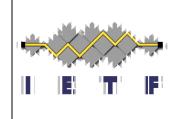
# Draft Status

- Presented at IETF 93, IETF94, IETF95, IETF96, IETF97

- Problem is now understood and acknowledged by large community of vendors and providers

- Good discussion already taken place on the WG list
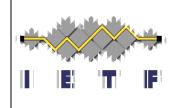
# ISIS Applicability

- The problem has been acknowledged in ISIS as well
- It is desirable to address the problem in both OSPF and ISIS in a similar way.
  - Encodings may differ and be protocol specific
- Draft submitted in ISIS WG
  - draft-ginsberg-isis-te-app-00.txt
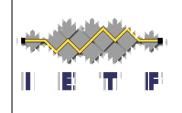
# Advertisement of Per Application Values

- We are making link attributes available for other applications (SR, LFA, etc)

- Right time to add the support for per application values

  - No need to come back and address that problem again in the future.

- The proposed encoding in the draft avoids any replication if there is a single value of the attribute used by all/multiple applications, while allowing the per application values to be advertised if needed.

# Alternative Proposal

- draft-hegde-isis-advertising-te-protocols-02
- draft-hegde-ospf-advertising-te-protocols-00
- At IETF 97 it was agreed that one proposal needs to be selected by the WG
- Both OSPF and IS-IS should select functionally equivalent proposals
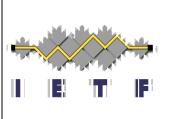
# Alternative Proposal(2)

- Limitations of this proposal:
  - only solves the problem of RSVP versus Segment Routing TE. It does not address any other non-TE applications - e.g. LFA, SPF based on the delay or bandwidth, or any future apps.
  - it took the approach of "indicating the protocols enabled on the link". While this may be good for RSVP, it does not work for other applications – the fact that LFA is enabled on a remote link is orthogonal to any link attribute on such link being used by LFA calculation on other nodes in the network.
  - does not support per application values.
  - Not backwards compatible

# TE Attributes and Application Requirements

| Requirement | ppsenak-ospf-te-link-attr-reuse<br><br>ginsberg-isis-te-app | hegde-ospf-advertising-te-protocols<br><br>hegde-isis-advertising-te-protocols |
|---|---|---|
| Per link application indication | Supported | Supported |
| Per application attribute value | Supported | Not supported |
| Backwards Compatibility | Supported (uses duplicate advertisements) | Not supported |
| Partial Deployment | Supported (uses duplicate advertisements) | Supported w config changes on legacy routers |
| Extensible to new applications | Yes | Yes |

# Next Steps

- draft-ppsenak-ospf-te-link-attr-reuse-04
  - Accept as OSPF WG item
  - Continue to evolve the document