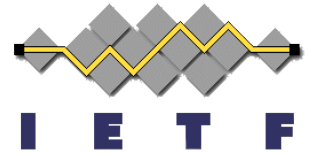
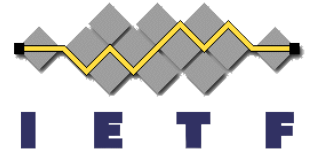


The Application Specific Link Attributes (ASLA) any Application bit draft-hegde-lsr-any-app **IETF 112**

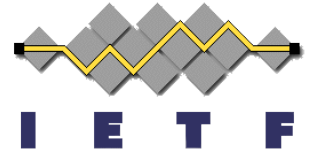
Shraddha Hegde
Ron Bonica
Chris Bowers
Robert Raszuk
Lizhenbin





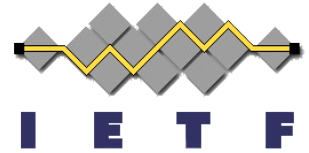
Agenda

- Problem statement
- Protocol extensions
- Backward compatibility



Problem statement

- Network operator may want certain link attributes to be used by all current and future applications
 - Many examples of networks evolution followed this approach
- ASLA allows for attribute advertisement where link attributes applicable to one application or some applications.
- There is limited provision to advertise attribute that is applicable to any application currently defined or going to be defined in future



Problem statement

- RFC 8919/RFC8920 do not allow application to use attributes from zero length SABM when any other attribute is advertised with an application bit set.
- More granular control over attribute advertisement for any application vs specific application is useful

Protocol extension

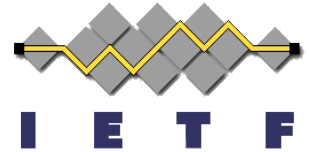
SABM bit mask values for OSPF and ISIS

```

0 1 2 3 4 5 6 7 ...
+--+--+--+--+--+--+...
|R|S|F|          ...
+--+--+--+--+--+--+...

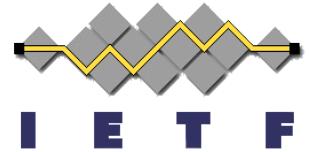
```

- Bit 0: R bit:RSVP
- Bit 1:S Bit:SR-TE
- Bit 2: F bit: LFA
- Bit 3:X bit: Flex-algo
- **Bit 4: A-Bit Any Application**



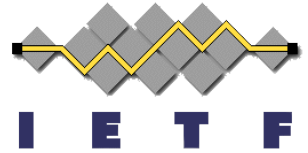
Backward compatibility

- A node that does not understand A bit, ignores the A bit and processes other ASLA or other bits in same ASLA as per RFC 8919/8920
- The mandates that if same attribute is advertised under ASLA with A bit and ASLA with specific application bit set, the advertisement under ASLA with specific application bit set precedence.
- Until all nodes are upgraded to support A bit, all nodes in the network need to advertise attributes with A bit set as well as application specific bit set.
- SABM with zero length processing continues to follow RFC 8919/8920 procedures and this draft does not modify that



Next steps

- Request review and comments
- Request WG adoption



Thank you