Using ALTO for exposing Time-Variant Routing information

draft-contreras-tvr-alto-exposure-02

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Background

- Presented at IETF 116 & 117
- It enables an off-path mechanism for exposing scheduled topological changes
- It serves the purpose of exposing scheduled topological changes to Applications/Services so those can become aware of routing variations impacting them
- ALTO allows to expose anticipated and predictable topological changes by leveraging on the cost calendar feature, defined in [RFC8896]
Changes from -01

- Assessment of ALTO as off-path solution against TVR requirements (v -00)
- Question about similarities wrt contact plan discussed on the mailing list
- Editorial updates (references, etc)
Advantages of the proposed approach

• By leveraging on ALTO, it is possible to offload the processing of changes from the network elements, avoiding also undesirable cascading / propagation effect
  • I.e., one scheduled change notified by one network element triggers advertisement of subsequent predicted changes in other network elements, and so on

• It can easily solve the case of considering predicted changes due to the appearance of new nodes / links not currently present in a topology
  • Network elements know about present nodes and links, but not about nodes and links not yet existing in the topology

• It allows to expose the scheduled topological changes to Applications / Services
  • Application/Services usually do not have access to internal routing information
Next steps

• Collect feedback from the WG

• Ask for WG adoption as off-path solution for TVR

• Any comment / feedback is more than welcome