SDP Elements for FEC Framework

draft-begen-fecframe-sdp-elements-00

IETF 70 – December 2007

Ali C. Begen
abegen@cisco.com

FEC Framework in One Slide

- The FEC Framework defines
  - The common components and aspects of Content Delivery Protocols (CDP)
  - The requirements for the FEC schemes
  - What configuration information has to be minimally known at the sender and receiver(s)

    → FEC Framework Configuration Information

- The FEC Framework **DOES NOT** specify
  - The internal mechanics of the individual FEC schemes
  - How the configuration information is negotiated or signaled between the sender and receiver(s)

    → These are rather specified by the FEC scheme or CDP

SDP Elements for FEC Framework

- The sender and receiver(s) **MUST** know how to configure the FEC Framework instance(s)

- A CDP using SDP (RFC 4566) as the session description protocol **MUST** use the SDP elements introduced by this document

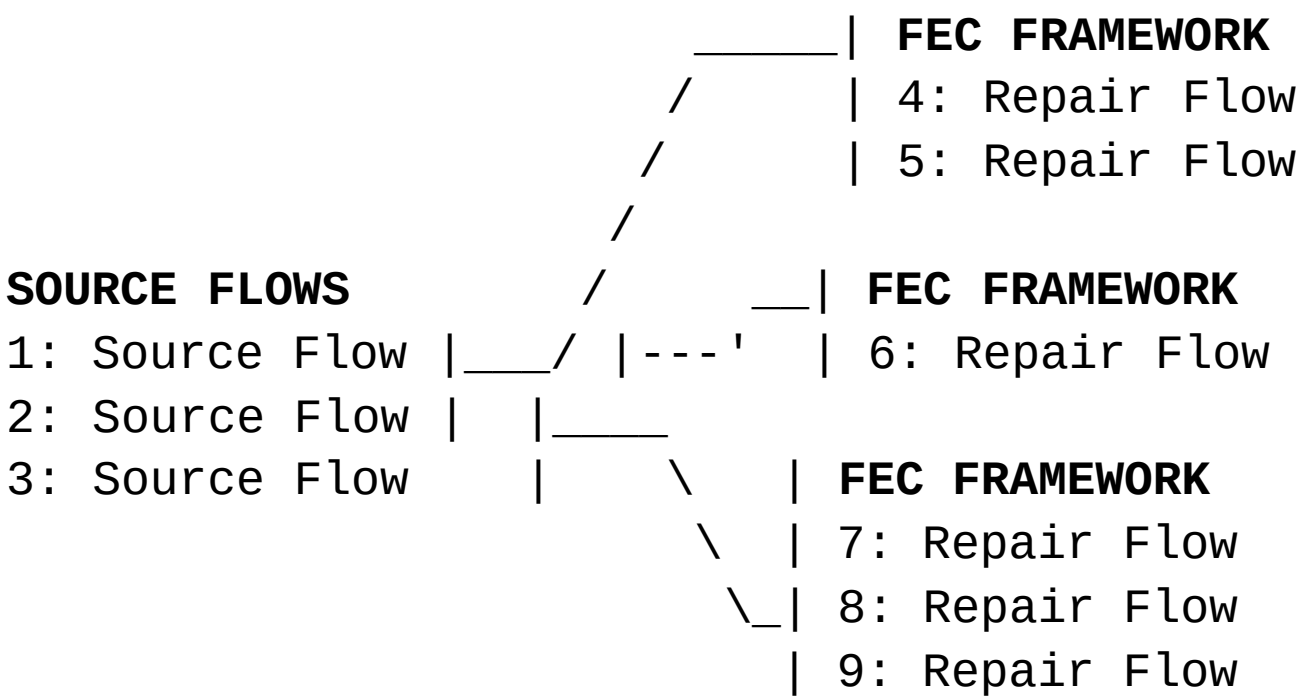
  → SDP is not, however, the only means to configure the instances

Configuration Information

- This information specifies the relationship(s) between the source and repair flows

- Each FEC Framework instance **MUST** provide
  - Identification of the repair flows
  - For each source packet flow protected by the FEC repair flow(s):
    - Definition of the source flow
    - An integer identifier for this flow definition
  - FEC Scheme ID that identifies the FEC scheme
  - Length of the Source FEC Payload ID (in bytes)
  - An opaque container for the FEC-Scheme-Specific Information

Example


SOURCE FLOWS
1: Source Flow
2: Source Flow
3: Source Flow
FEC FRAMEWORK
4: Repair Flow
5: Repair Flow
FEC FRAMEWORK
6: Repair Flow
FEC FRAMEWORK
7: Repair Flow
8: Repair Flow
9: Repair Flow

Media Stream Grouping

- We use the ‘group’ attribute and the FEC grouping semantics defined in RFC 4756 are used to associate source and repair flows together

- We support multiple layers of FEC protection (additive)

- We support prioritization among different layers

Comments/Feedback

- We don’t like to reinvent the wheel

- Send us any feedback you think that is necessary at the early stage