Applicability of BIER Multicast Overlay for Adaptive Streaming Services


Debashish Purkayastha, Dirk Trossen, Akbar Rahman, Toerless Eckert

IETF-104, BIER WG, March 2019
Recap: BIER Multicast Overlay for HTTP Response

- Adopted as a WG document
  - Thanks to the WG !!!
- Example realization of the use case (https://tools.ietf.org/html/draft-ietf-bier-use-cases-06#section-3.10)
- Reference Architecture and Realization of the “multicast overlay” over IPMC and BIER was described
- Pros and Cons for both were considered
- For realization over BIER, operational details including functional elements such as PCE, Service Handler were described
Recap: Reference Architecture over BIER

- The multicast overlay is formed by the BFIR and BFER of the BIER layer and the additional SH (Service Handler) and PCE (Path Computation Element) elements.
Details Added

• Deployment options for SH, BFER, BFIR

• Included description of the work done at DVB and BBF

• Updates to the operational procedure
  – Forwarding mechanisms
  – Clarifying the case for reliable transport
Next steps

• Proposed next steps
  – Include other use cases apart from streaming, e.g.
    • File replication in CDNs
    • SW updates over HTTP
    • Connect to ITU-T Network2030 work
  – Add details for operation of the Multicast Overlay
    • Interface functions to BFIR where the PATH ID is mapped to BIER header
    • PCE Registration procedure
    • Protocol between PCE and Forwarder/BFIR/BFER
    • Interfacing with BIER TE