

BIER WG IETF 101

Montreal

18 July 2018

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Agenda

- Welcome, Notewell, Agenda bash 5min Chairs
- multicast-http-response 15min Purkayastha
- draft-ietf-bier-pim-signaling Bidgoli
- draft-hj-bier-mlbp-signaling-00 15min Bidgoli
- draft-venaas-bier-mtud-01 10min Stig Venaas
- draft-ietf-bier-mld 10min Stig Venaas
- draft-zzhang-bier-php-00 10min Jeffrey Zhang
- draft-przygienda-bier-migration-options 15min Przygienda
- room discussion as needed
- draft-geng-bier-sr-multicast-deployment 10min Liang Geng
- draft-xie-bier-entropy-staged-dc-clos 10min Mike & Jingrong
- draft-xie-bier-mvpn-mpls-p2mp-02 5min Mike & Jingrong
- draft-xie-bier-mvpn-segmented-01 10min Mike & Jingrong
- draft-xie-bier-6man-encapsulation-01 10min Mike & Jingrong
- Status/Announce 5min Chairs

Advertisement for BIER in ROLL Design Team

- Consider joining/collaborating in BIER design team in ROLL-WG:
- Email: roll-bier-dt@ietf.org (normal subscribe)
- Issues: tte@cs.fau.de

- What could be cool about this (if design team decides to do it) ?
- End-to-end BIER (with TE) in low-power networks (e.g.: building control)
 - Example: Application Controller sends BIER packet to subset of clients (lightbulbs)
 - Each client is BFER (has a bit)
 - Every packet can address a separate subset of actors through bitstring
 - Only controller app needs to be BIER aware. Receivers can think its just IP multicast.
- BIER TE bits to save power/memory
 - Routers are low-power (memory/CPU). Do not want to keep large routing table (1000 light bulbs). Links are low power too.
 - Every interface has a bit. Routers only need to route on bits to directly connected downstream neighbors.
- No ASIC constraints. Everything is software
 - Headers/Bitstring can be compressed (loss free, lossy (bloom) to support long bitstrings.
 - Should result in header more compact than existing ROLL/RPL headers even for unicast: Only hop-by-hop bits sets to one receiver: Would also be used for unicast forwarding.

Application controller can efficiently send packets to Every subset of receivers by being BIER aware.

