# Incremental Label Announcement LDP GR Extensions @ IETF 81

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#### Motivation

- LDP GR speaker re-advertise all its local bindings to all its peer upon GR restart.
- By preserving all the label bindings and versioning the label binding, LDP-GR speaker should always advertise the "incremental" changes in label binding only.
- By eliminating all the unnecessary retransmission of label bindings, this should reduce CPU spike and accelerate convergence.

## ILA Capability TLV

LDP Initialization Message Exchanged between LDP GR Peers. ILA Extension defines a new Capability TLV which specifies the list of FEC Type supporting ILA.

LDP Initialization Message contains:

FT Session TLV = (0x0503)

ILA Capability TLV



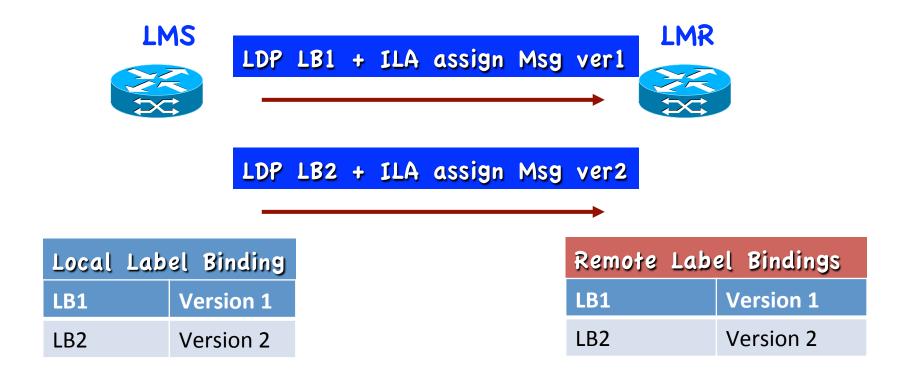


LDP GR Peer ILA Capable LDP GR Peer ILA Capable

#### New ILA FEC TLV

- Used for both advertisement and withdraw label bindings
- · Describe the FEC Type
- Two Modes:
  - Request Mode: initiate by LMR after restart
  - Assign Mode: send by LMS in response to ILA Request Message
- Version ID is 64 bits

### Preserve Label Bindings



LMS preserves its local bindings
LMR preserves the remote bindings

#### After GR restart

**LMS** 

ILA request Message version 2

**LMR** 





Local Lab	el Binding
LB1	Version 1
LB2	Version 2
LB3	Version 3
LB4	Version 4

Remote Lab	el Bindings
LB1	Version 1
LB2	Version 2

ILA assign Message version 2