

# EVPN Multi-Homing Extensions for Split Horizon Filtering

## draft-nr-bess-evpn-mh-split-horizon-00

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Jorge Rabadan (Nokia)

Kiran Nagaraj (Nokia)

Wen Lin (Juniper)

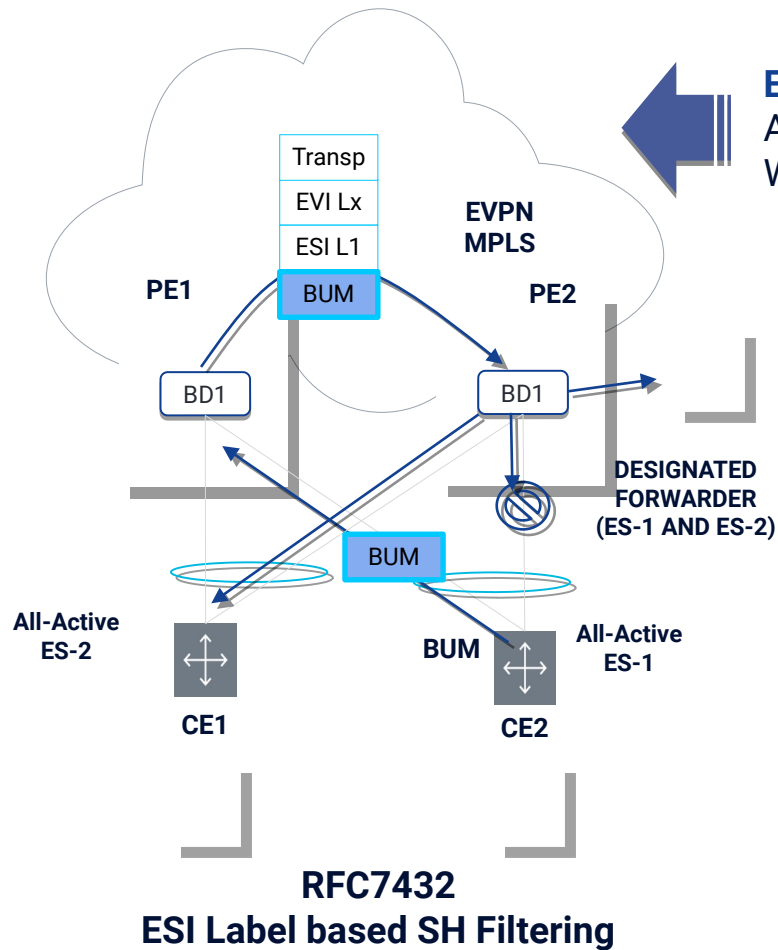
Ali Sajassi (Cisco)

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# EVPN Multi-Homing Split-Horizon mechanisms

## In current specifications

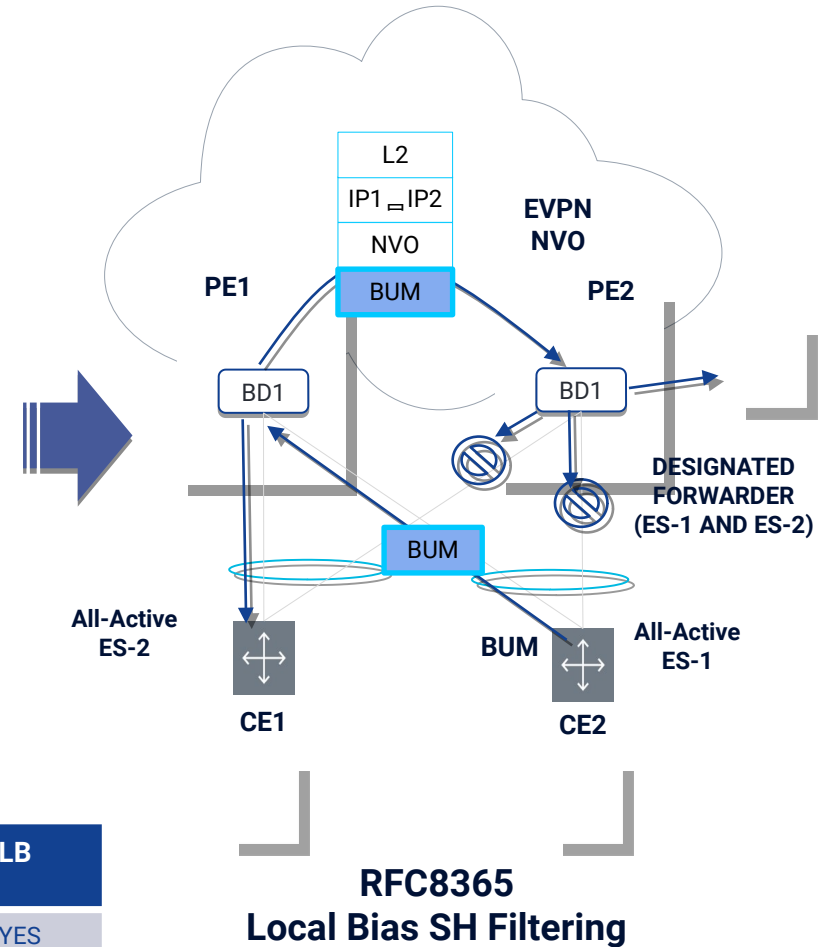


**ESI Label SHT**  
All-Active and Single-Active  
Works Inter-AS/domain

**Local Bias SHT**  
All-Active only  
No Inter-AS/domain

BUT: less resources, no extra labels, ingress NVE always forward locally

Encapsulation	Default SHT	ESI Label	LB
VXLAN, NVGRE	LB	NO	YES
MPLS	ESI Label	YES	NO
MPLSoX (x=GRE, UDP, IP)	ESI Label	YES	YES
GENEVE	LB (if no ESI option) ESI L (if option)	YES	YES

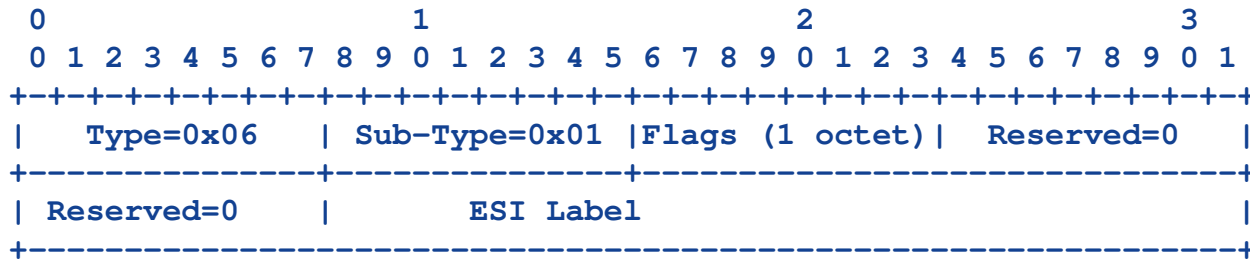


# BGP EVPN extensions

## For network encapsulations that support both SHTs

### ESI Label extended community

Advertised with A-D per ES route (type 1)



#### Flags Octet Bits:

- 0    = Single-Active bit
- 7-6  = SHT (Split Horizon Type)

#### SHT bit 7 6

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0 0  = Default SHT. Backwards compatible with [RFC8365]
0 1  = Local Bias
1 0  = ESI Label based filtering
1 1  = reserved for future use
```

### Signaling of the Split Horizon Type (SHT)

Allows NVE/PEs attached to the same ES to agree on the SHT to be used in the ES.

SHT is different than 00 only for tunnels that can support both SHTs

Backwards compatibility with RFC8365: inconsistency in the ES reverts to the default SHT

### NVEs supporting multiple encapsulations

A-D per ES routes advertise multiple encapsulations and SHT=00 if at least one of the encaps support only one SHT

A-D per ES routes advertise multiple encapsulations and SHT≠00 if all encaps support both SHTs

Different SHT may be signaled for the same ES in different A-D per ES routes for different groups of EVIs

# Next steps

The Authors would like to request Feedback

Thank you