

AC-influenced DF Election for EVPN

draft-rabadan-bess-evpn-ac-df-03

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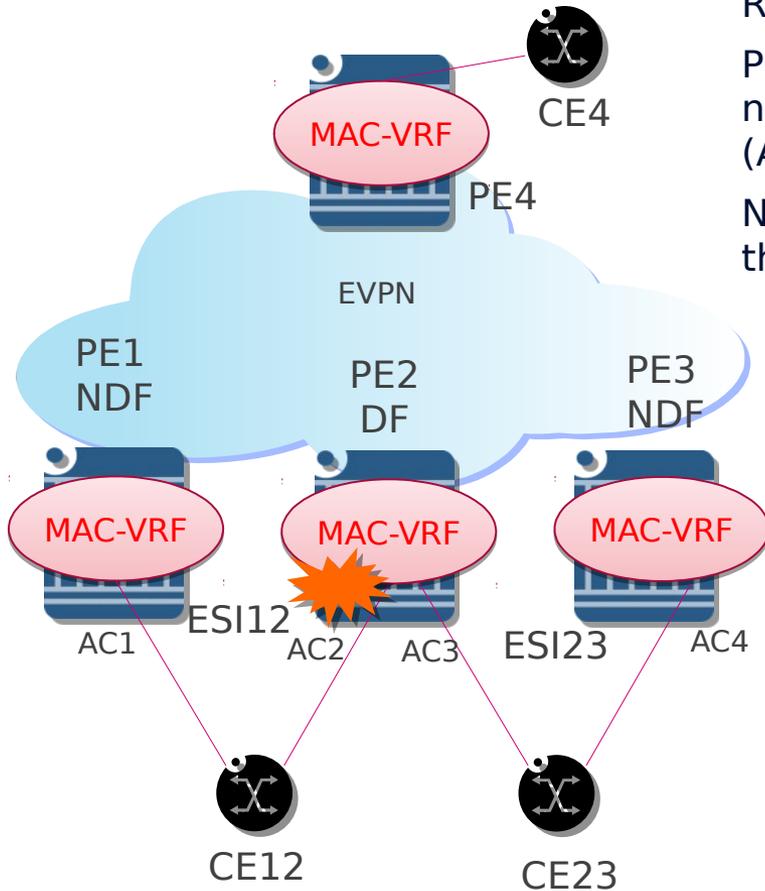
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Problem statement refresher

RFC7432 Service-carving does not solve individual AC failures



RFC7432 elects a DF at <ESI, EVI> level

Provides protection against link/node failures but not against “logical failures” or “Attachment Circuit” (AC) failures

NOTE: AC == VLAN or VLAN-bundle associated to the EVI on the ES

E.g. AC2 goes admin/oper down or not provisioned yet

E.g. PE2’s MAC-VRF shutdown or not provisioned yet

VPLS BGP Multi-homing can protect these failures (see draft-ietf-bess-vpls-multihoming)

The Solution is to remove PEs from the candidate list based on the AC status

Does this introduce new control plane components?

No

The Ethernet A-D per EVI update/withdraw route is an indication of a remote ACS (Attachment Circuit Status) for the receiving PE.

How does it work?

When electing the DF for a given EVI, a PE will not be considered candidate until an Ethernet A-D per EVI route has been received from that PE.

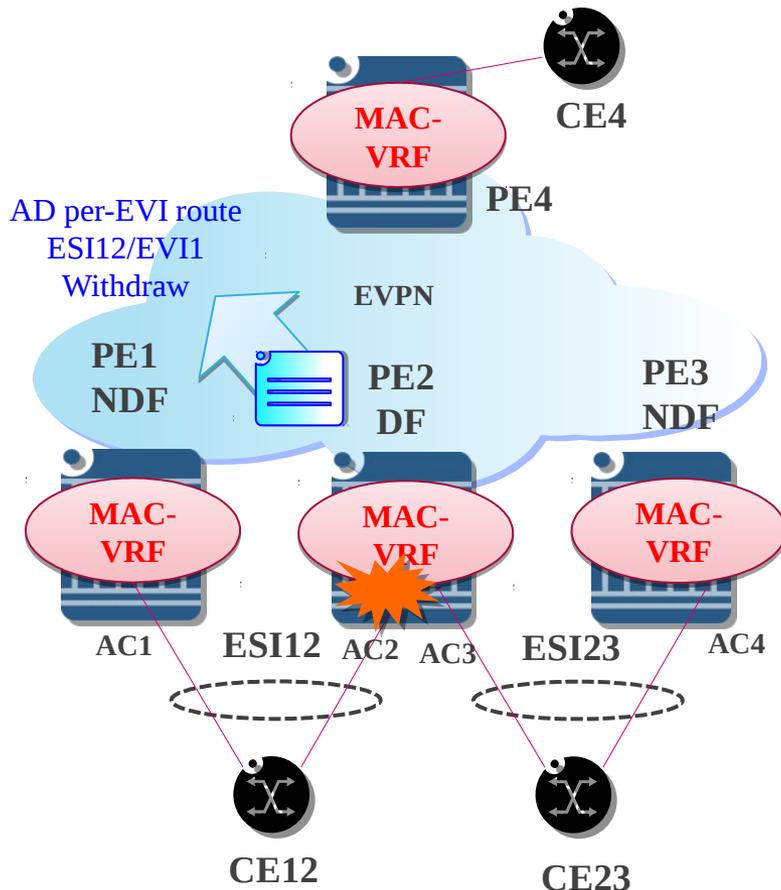
E.g. PE-1 will not consider PE-2 as candidate for DF election for <ESI12, EVI-1> until an Ethernet A-D per EVI route is received from PE-2 for <ESI12, EVI-1>

Is this backwards compatible with RFC7432?

Absolutely

It does not modify the existing EVPN control plane. It only modifies the candidate list.

PEs supporting AD routes but NOT this procedure may work with PEs supporting this draft just fine, although they will NOT benefit of this improved mechanism



What did it change in rev 03

- New co-author, Autumn Liu (Ericsson)
- Given the received feedback, the PBB-EVPN solution was removed since it added new control plane components on RFC7623
- As a result of the above point, the intended status is changed to 'Informational' since:
 - It no longer introduces any new control plane component
 - The solution is backwards compatible with RFC7432 implementations supporting AD routes

Next steps

- Seeking for more feedback
- The authors would like to solicit WG adoption