# BGP VPLS Multihoming
Draft-ietf-L2vpn-vpls-multihoming-04

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Problem statement

- Route Oscillation
- Architecture limitations due to not following standard BGP semantics
  - Algorithm defined
    - Standard BGP best path selection
    - VPLS DF Election
- Lots of not so clearly defined parameters throughout the entire draft
    - MH NLRI
    - Algorithm
   - VE-ID allocation
    - PW instantiation

Route Oscillation
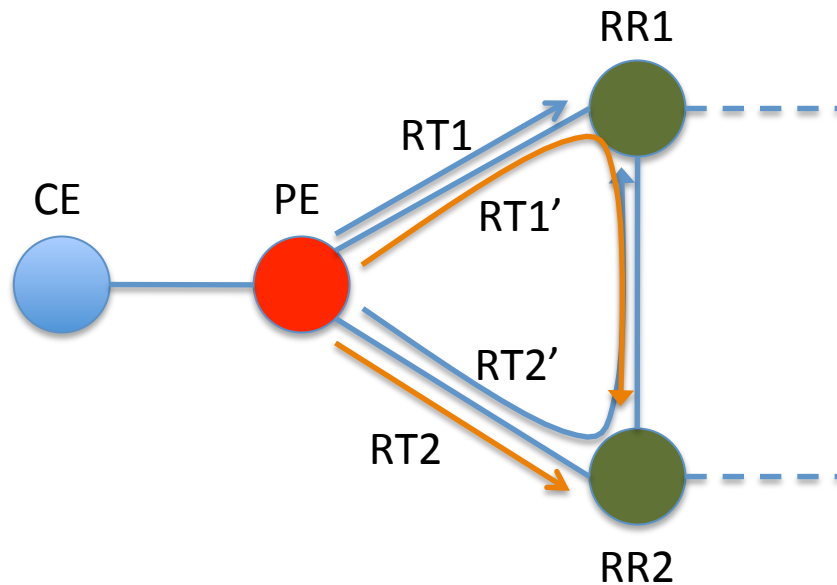
The VPLS route for CE is advertised by PE to RR1 and RR2 as RT1 and RT2, respectively; RT1' and RT2' are these same routes re-advertised by RR1 to/from RR2

- RR1 receives RT1 from PE and RT2' from RR2. RT1 and RT2' are the same route (from PE). How should RR1 choose between them?

- RR2 has the same problem

- If RR1 chooses RT2' and RR2 chooses RT2, life gets difficult

eBGP vs. iBGP
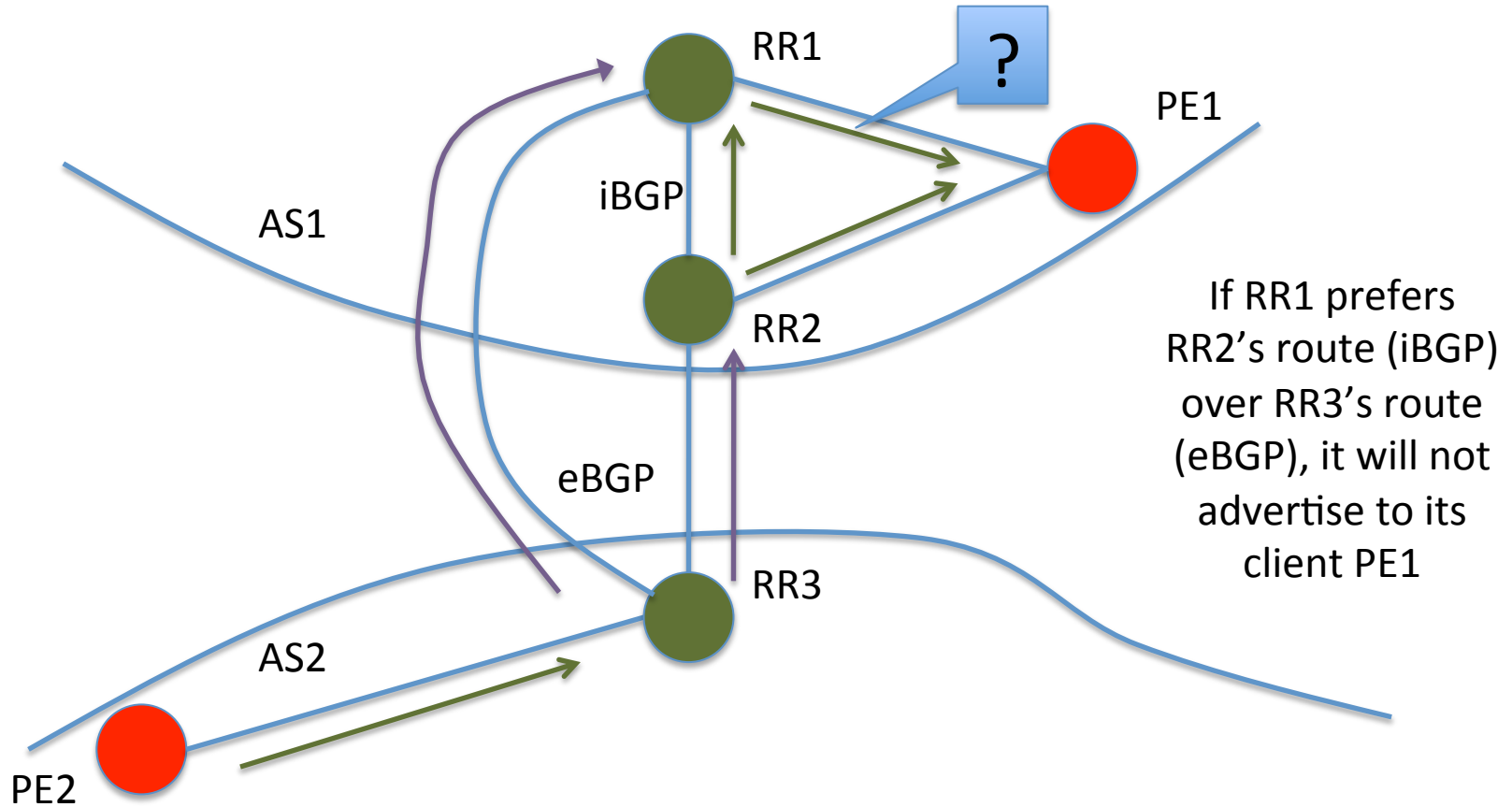
Colored lines with arrows indicate VPLS
route advertisement/re-advertisement

Proposed Solution

- Requiring unique RDs between MH PEs

- Elaborating on notion of bucketization and splitting BGP and VPLS algorithms fully

- Defining full BGP selection ensuring ebgp vs. ibgp and all other BGP rules

- Defining VPLS DF election rules

Some additional text clean up

- Made some portions of the text more readable for first time readers not familiar with BGP VPLS MH-ing concepts (there was a lot of assumptions)
  - As to why and how certain parameters and variables are used
- Backward compatibility issues
  - Defined PW Binding rules in relation to VE-ID allocation
- One more draft revision needed before final call