Multicast VPN fast fail-over

draft-morin-l3vpn-mvpn-fast-failover-03

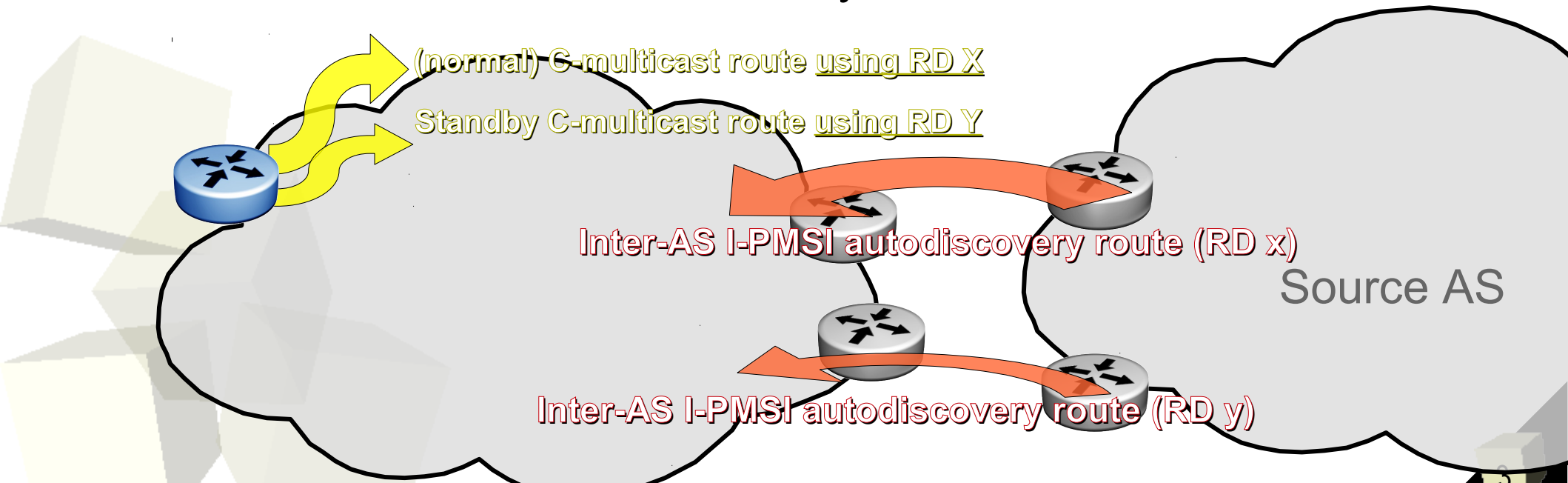
Wim Henderickx, Praveen Muley – Alcatel Lucent
Thomas Morin – FT Orange
Yakov Rekhter, Rahul Aggarwal – Juniper

Reminder

- This proposal was already presented in previous IETF
- Describes two mechanisms to reduce connectivity restoration time for multicast traffic in a VPN context, for failures on the upstream PE side:
  - UMH Selection based on P-tunnel status: avoid waiting for unicast convergence
  - Standby C-multicast route: avoid signaling at failure-time by preparing the backup upstream PE
- These mechanisms can be used, independently or together, depending on the failure coverage and level of protection wanted
- Different levels of protection: cold, warm, hot, leaf hot

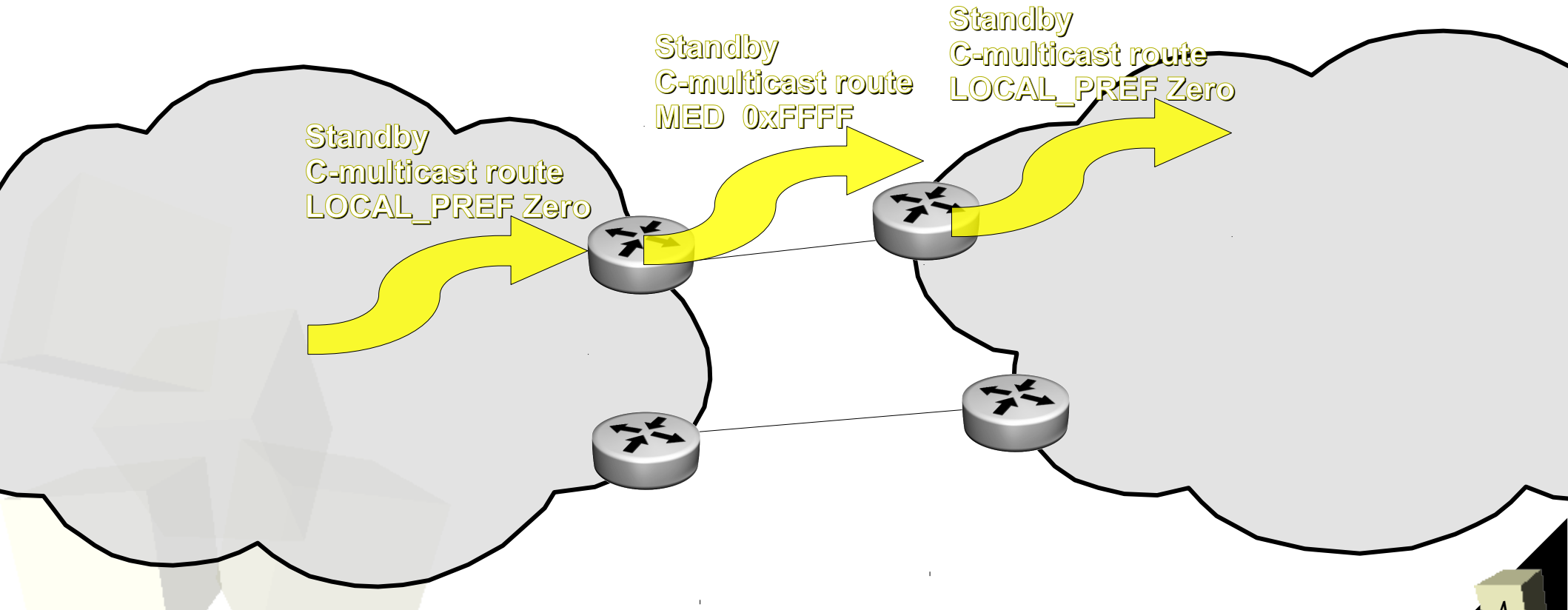
Standby support in Inter-AS [1/2]

- Last revision adds Standby C-multicast routes support in inter-AS
  - the key is to carry the Standby semantic across ASes
- A pre-requisite is that, for a source of a said MVPN:
  - that any PE of this MVPN receives two Inter-AS I-PMSI auto-discovery routes advertized by the AS of the source (or more)
  - that these Inter-AS I-PMSI autodiscovery routes have distinct RDs (as described in item "(2)" of section 9.2 of draft-ietf-l3vpn-2547bis-mcast-bgp)
- PEs that are not in the AS of the source can then build a normal C-multicast route *and* and Standby C-multicast route, using the RD of each inter-AS I-PMSI auto-discovery routes



Standby support in Inter-AS [2/2]

- In intra-AS we require Standby C-multicast route to carry a Local Preference of zero, to ensure that if a case where both a normal and a Standby C-multicast route are advertised, the normal takes precedence
  - to preserve this in inter-AS, ASBRs translate between Local Preference zero and Multi-Exit Discriminator “infinity“



Next steps

- Hot leaf standby support in an Inter-AS context will be covered in next revision
- Good support to the document during the presentation made in previous IETF
- We would like to ask for WG adoption, as soon as the WG starts accepting new documents