draft-mankamana-pim-graceful-dr-shutdown-00

Mankamana Mishra
Stig Venaas
Mahesh Sivakumar
Zheng(Sandy) Zhang
Mikael Abrahamsson
IETF-102

Problem Statement

- On shared LAN when PIM DR is going down , We do not have way to gracefully handover responsibility to new DR

- When exiting PIM DR is going down, and new PIM DR is picking it over, there could be potential traffic loss

Proposed Solution – Summary

- Current PIM DR to send PIM Hello with Priority 0 & New Hello option stating it is going in maintenance mode
- Current PIM also adjust its assert matric to INFINITY to make sure it looses the assert election
- New PIM DR on LAN, starts building multicast tree, it shut of data driven assert mechanism for fail safe timer
- As new DR starts getting traffic from newly built tree, it would start forwarding.
- Old DR would start pruning the flows for which it is getting traffic on forwarding interface
- Solution works for any DR transition, which includes the case when new PIM DR is getting introduced.

All PIM routers on LAN support this Specification
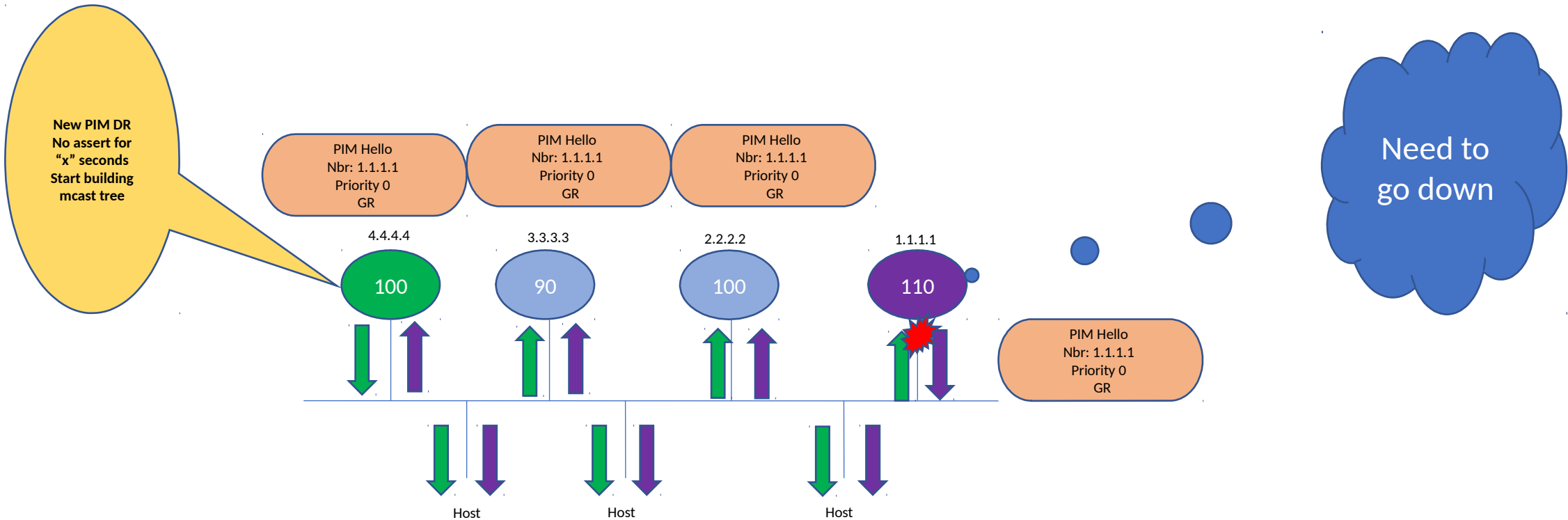
If some PIM routers do not support this specification

- If new PIM DR supports this specification, exactly same steps would happen as previous slide.

- If new PIM DR does not support this specification, it is going to assert right away, Since current PIM DR has set its assert matric to Infinity, it is going to loose.

Question & Feedback