

facebook

A tale of two labels

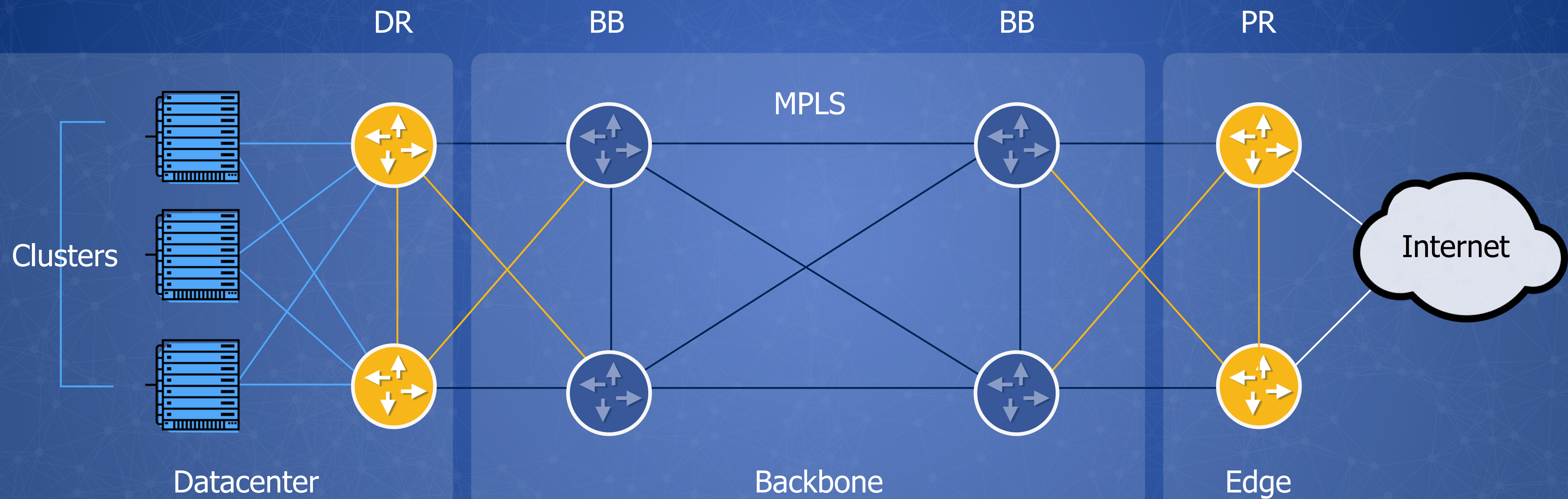


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A person in a white space suit is floating in the air, arms outstretched. The suit has a large blue visor showing a view of Earth. The background is a dimly lit room with a desk, a picture of the sun on the wall, and some equipment on the desk.

Facebook scale / topology

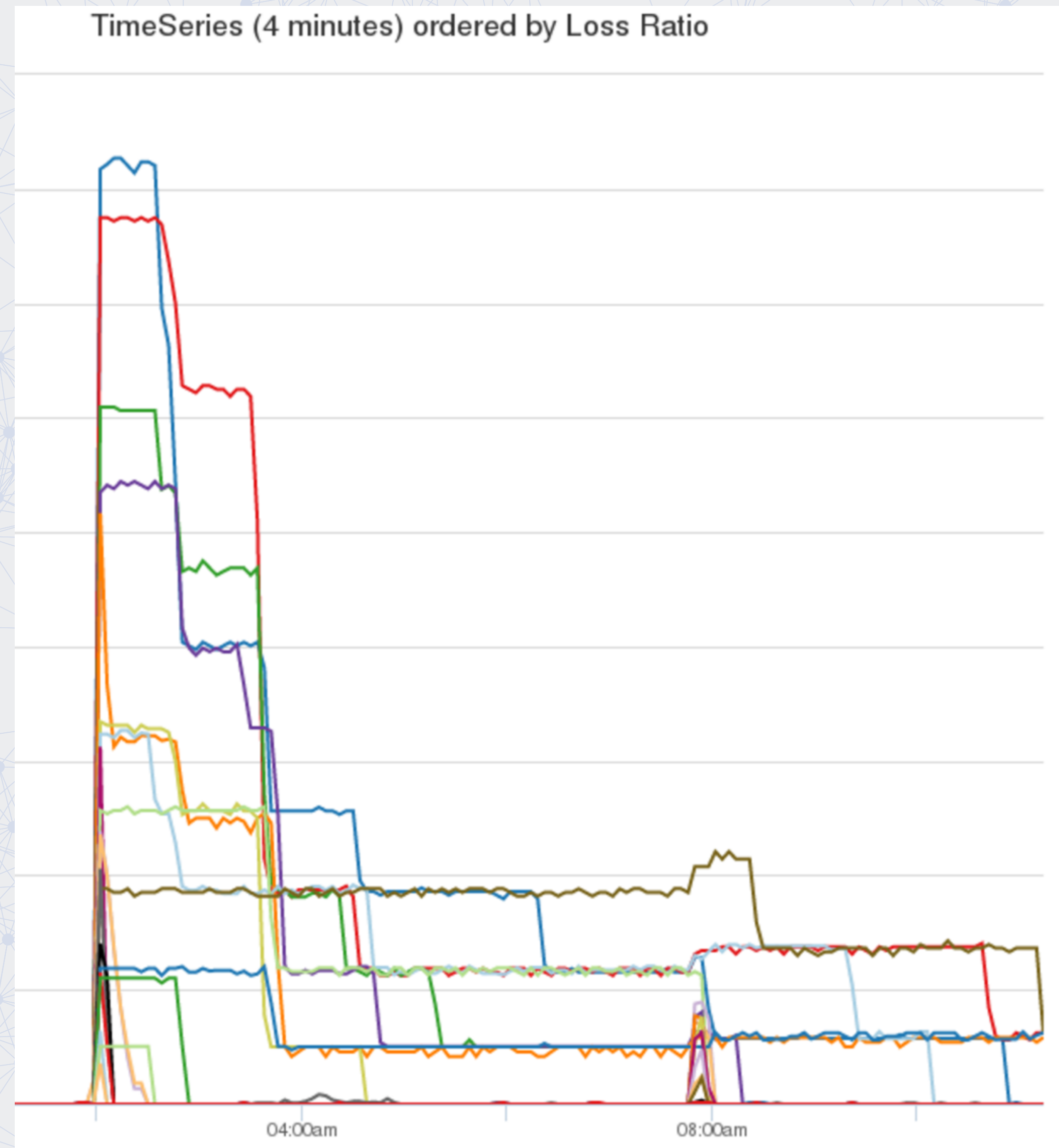
Topology





Investigation

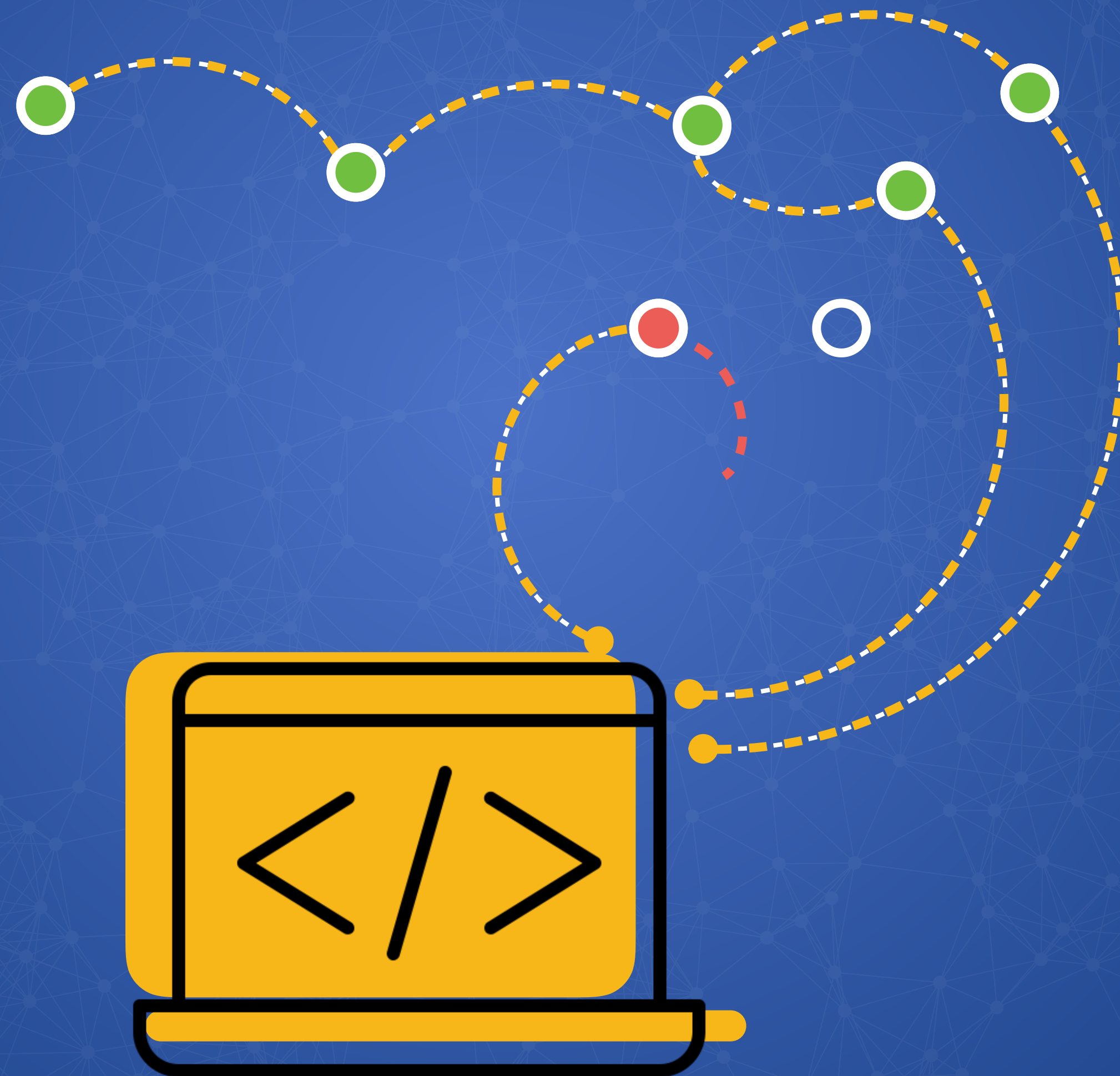
Detecting the problem



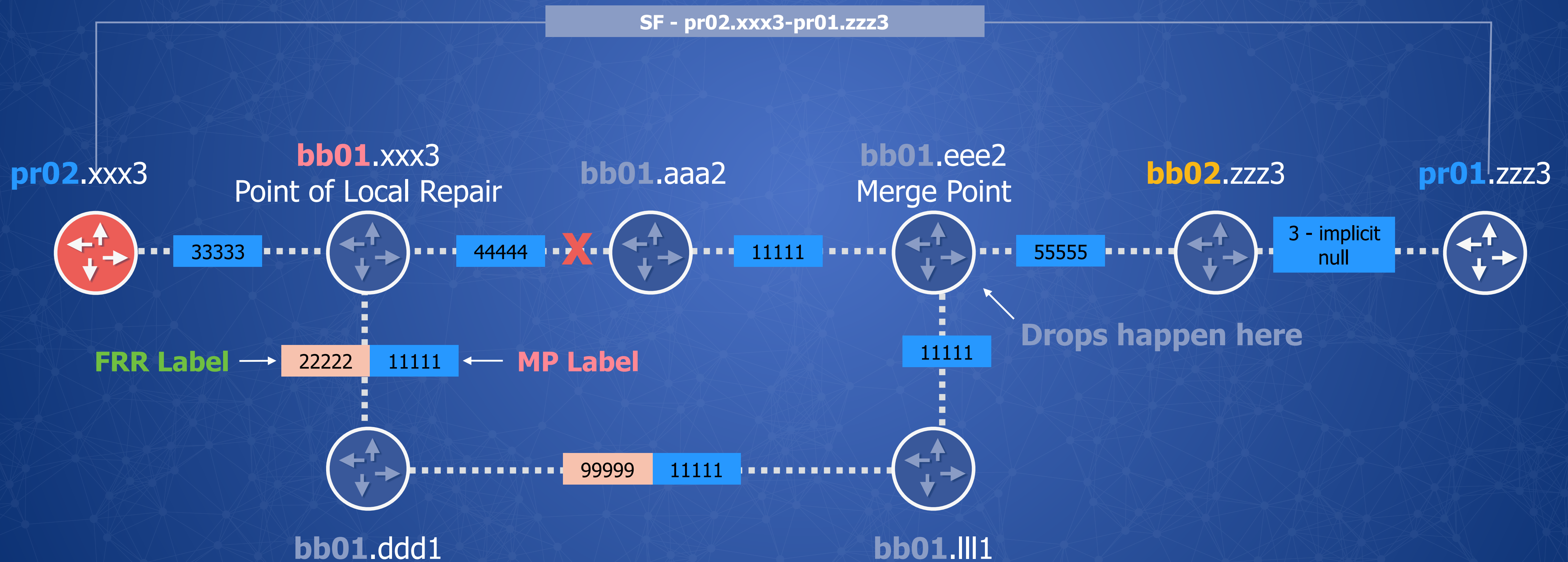
Analysis of dropped packets



Active Probing

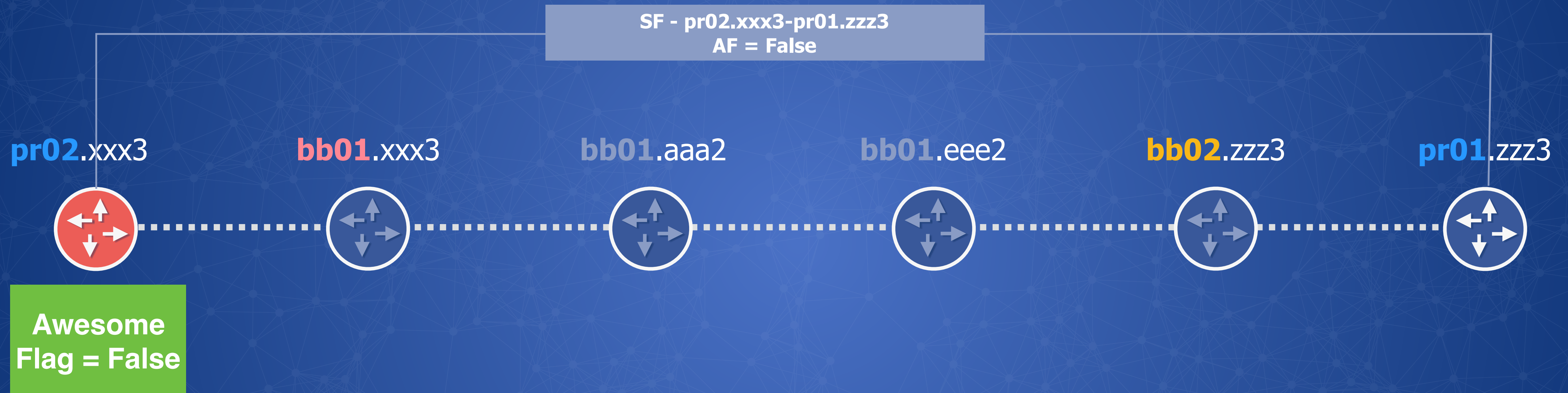


LSP with hops and labels

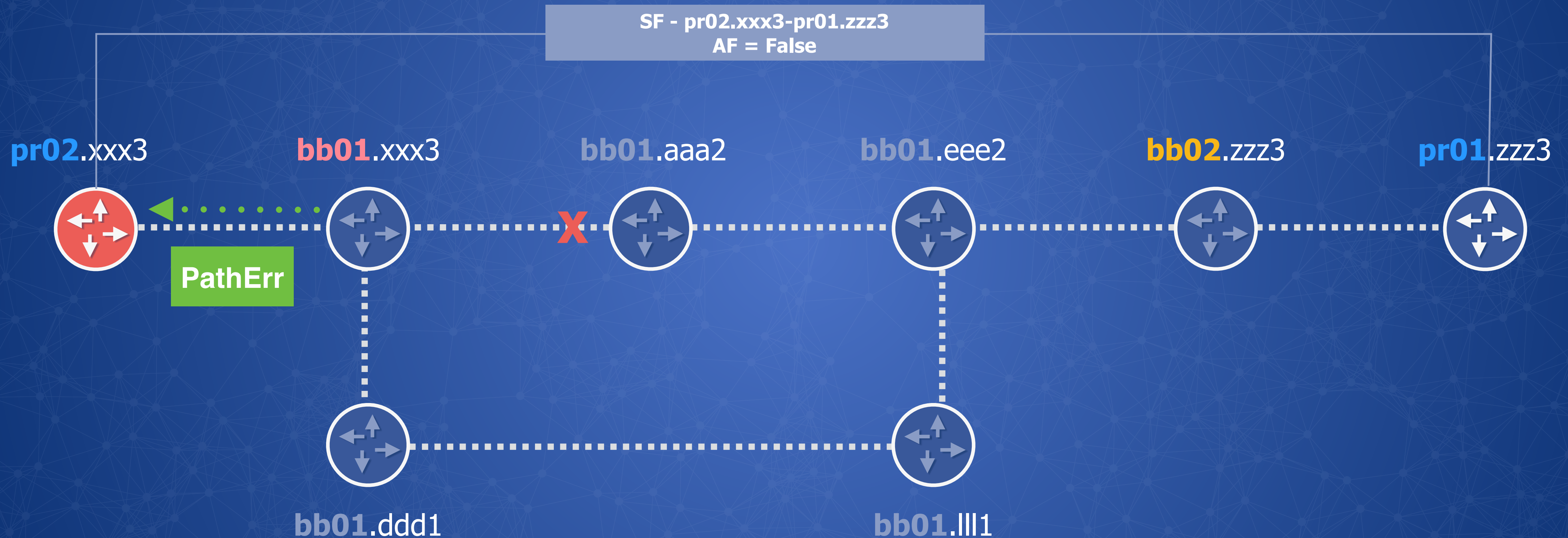


Fixing the problem

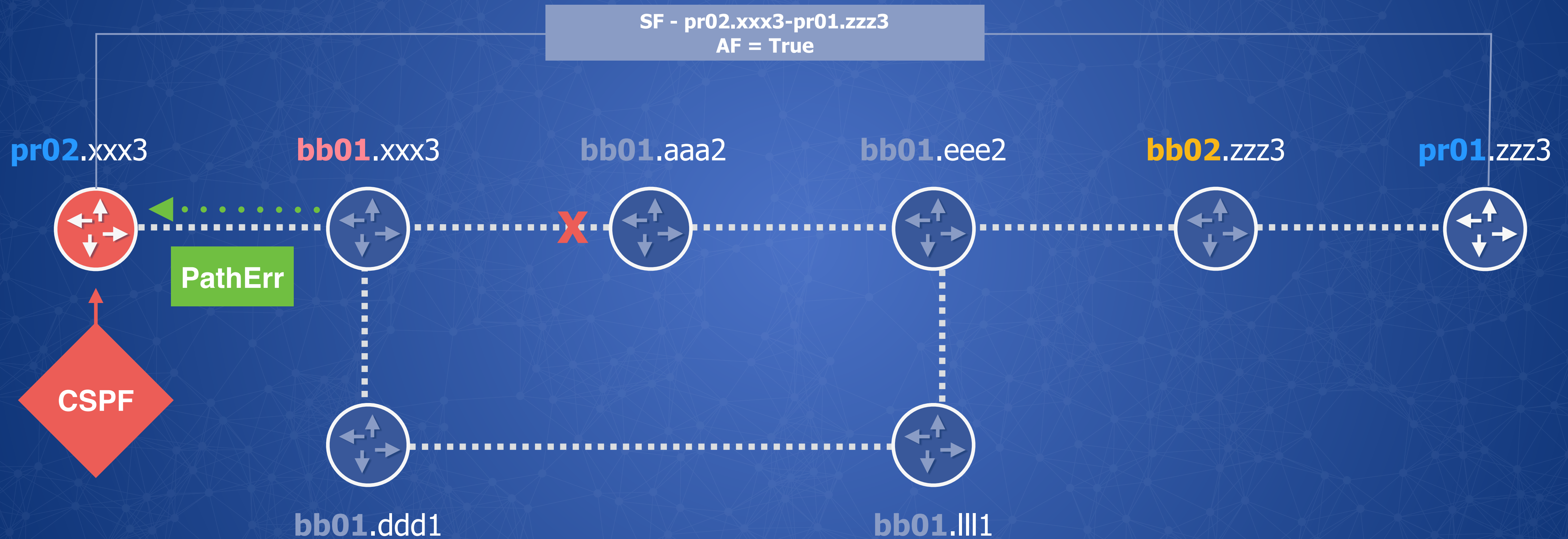
Bug #1 Global Revertive Mode is Broken in Vendor 1



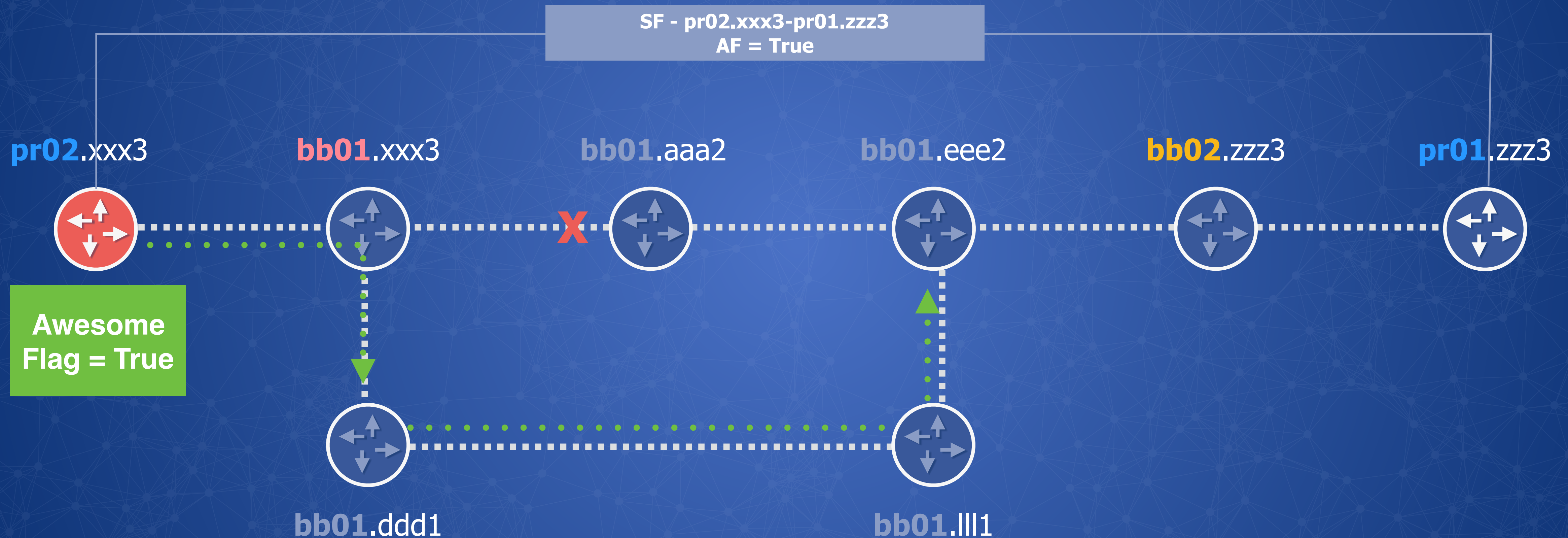
Bug #1 Global Revertive Mode is Broken in Vendor 1



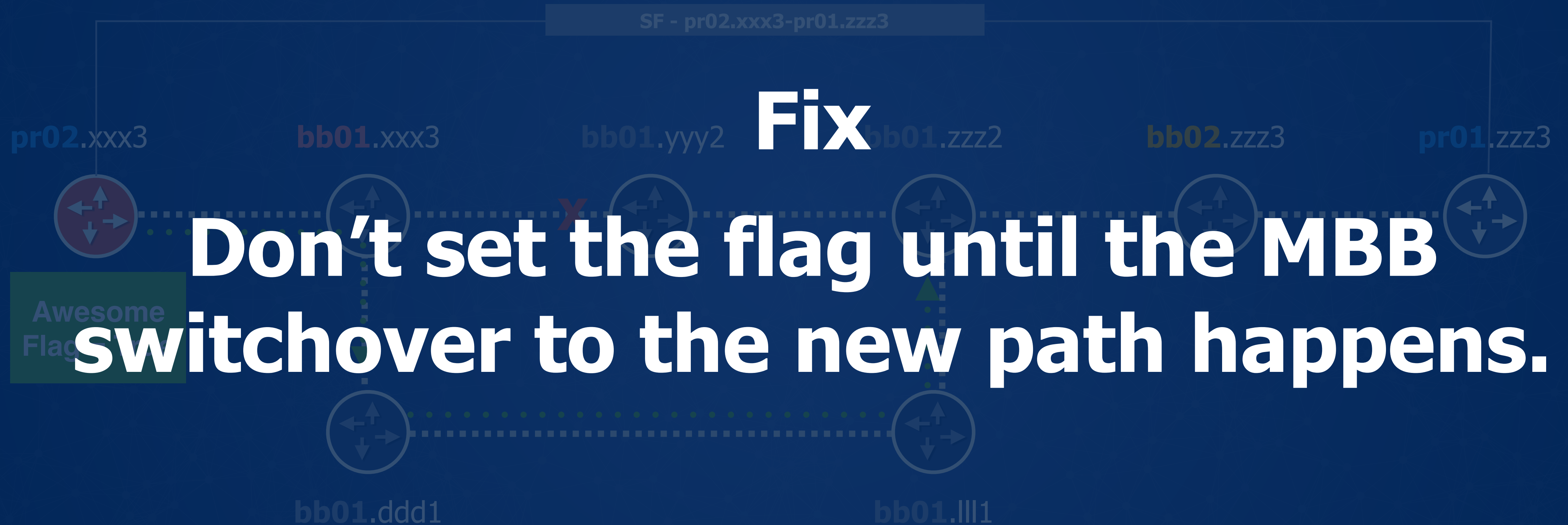
Bug #1 Global Revertive Mode is Broken in Vendor 1



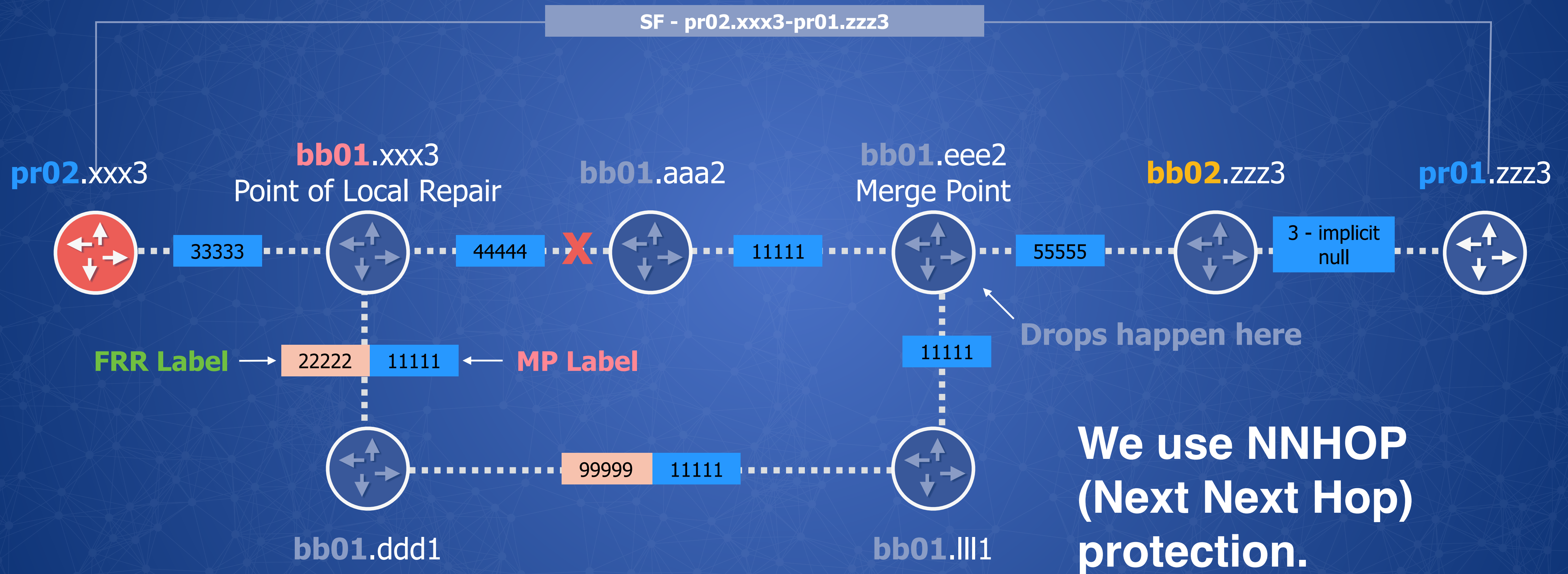
Bug #1 Global Revertive Mode is Broken in Vendor 1



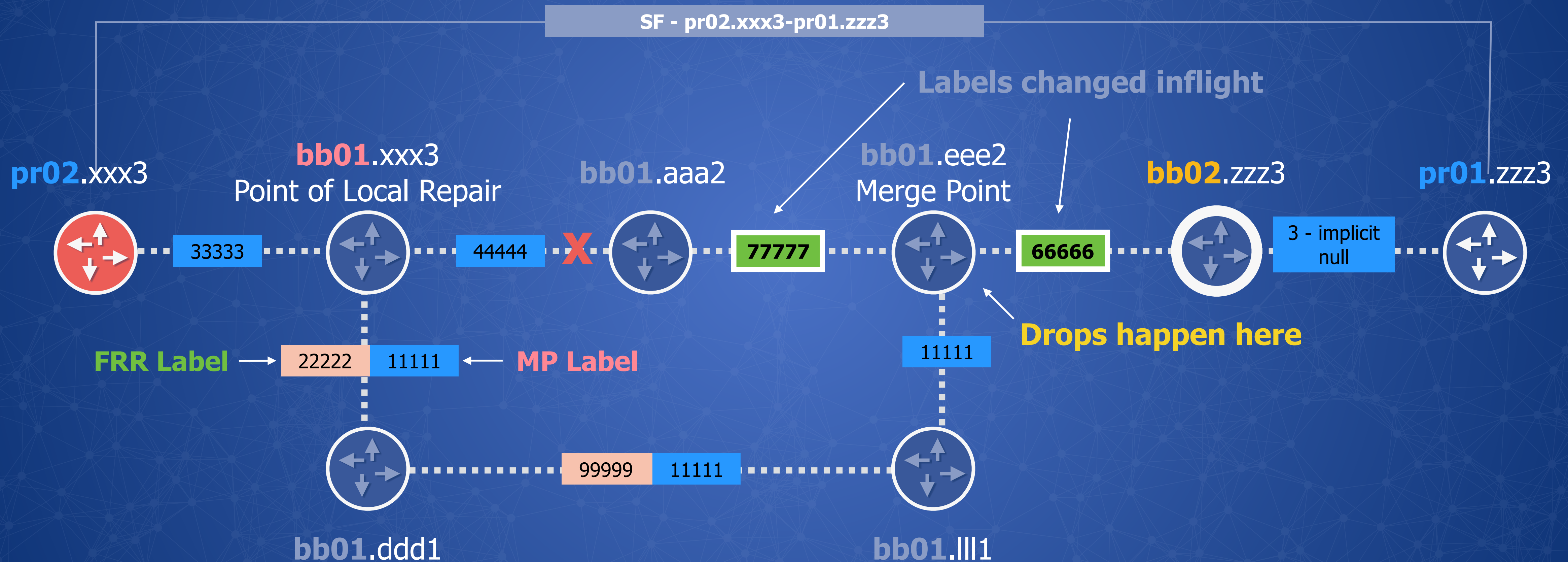
Bug #1 Global Revertive Mode is Broken in Vendor 1



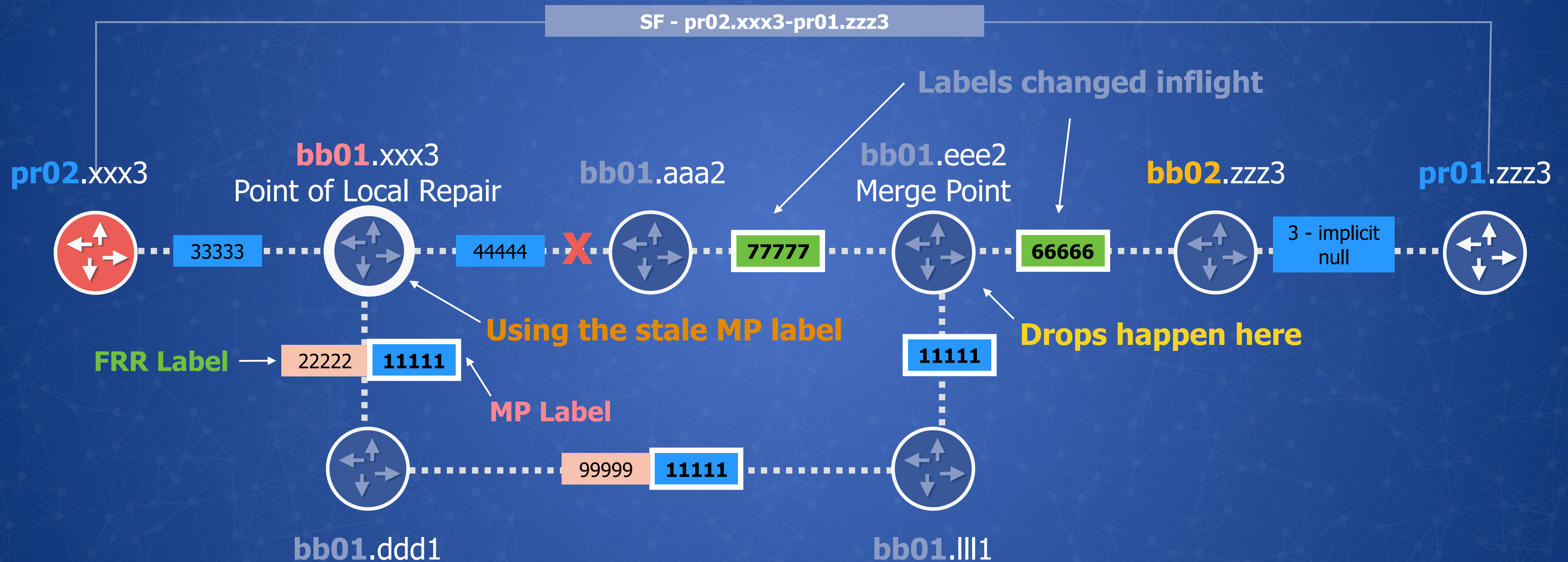
Bug 2: MP label change not honored by PLR



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Fixes

Vendor 1:

Adding the label sub-object in the RRO when an LSP is in FRR mode.

But this node keeps using the old ones



Bug 2: MP label change not honored by PLR

Fixes

Vendor 2:

Extract the MP label from the RRO when label is missing from the Node IP address but present in another IP address that belongs to the MP

But this node keeps using the old ones

Lessons Learned

Lessons learned



Monitor end-to-end

Collect all the things

Failure != Impact

**Multivendor
is hard**

