

facebook

A tale of two labels

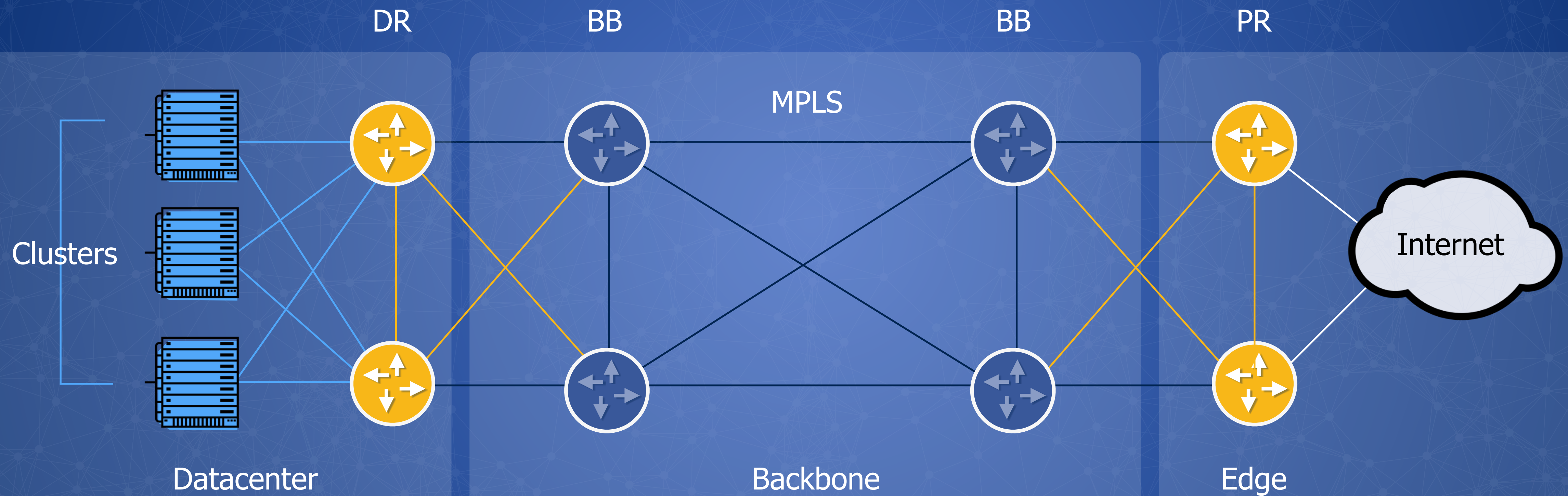


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Facebook scale / topology

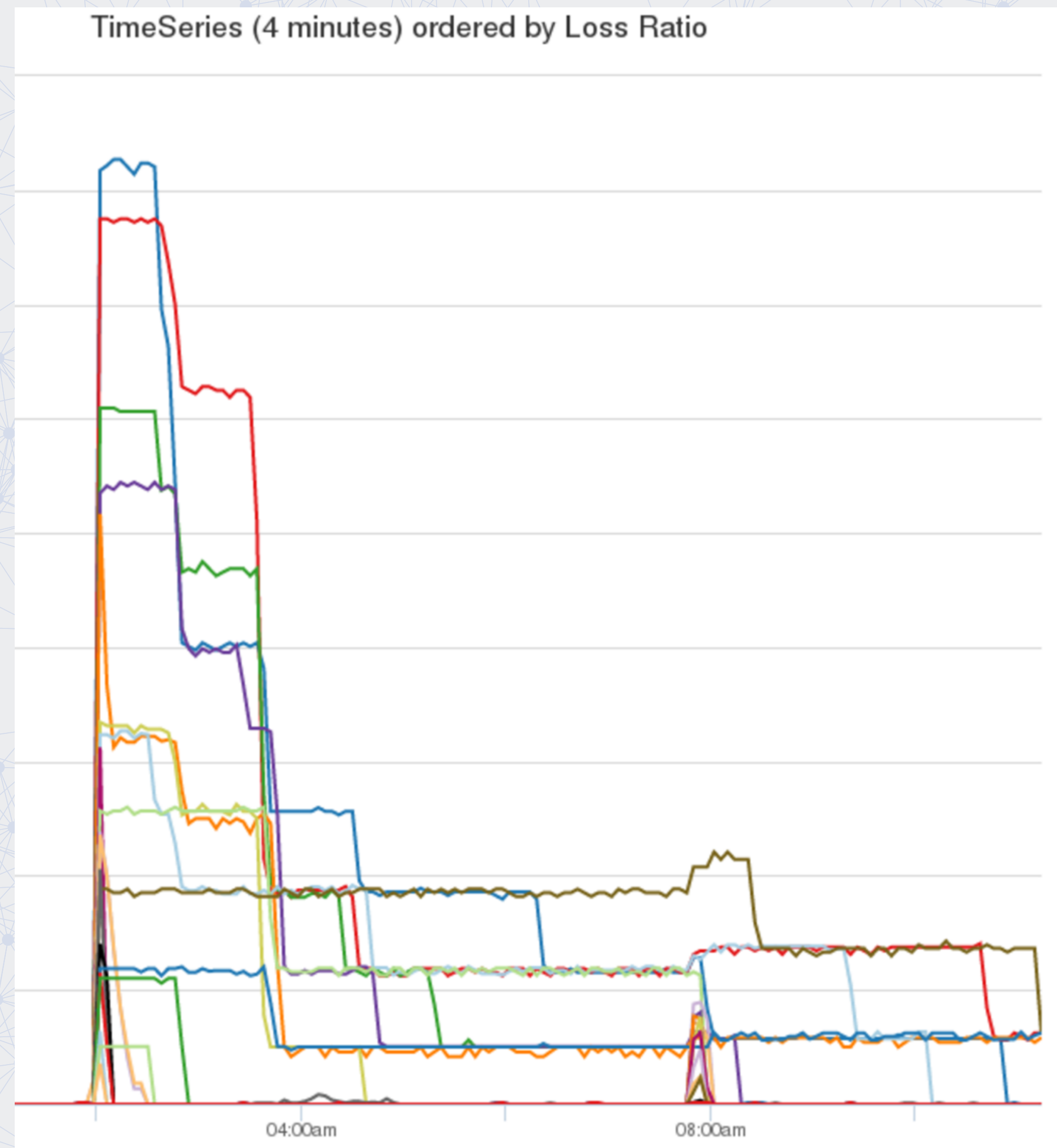
Topology





Investigation

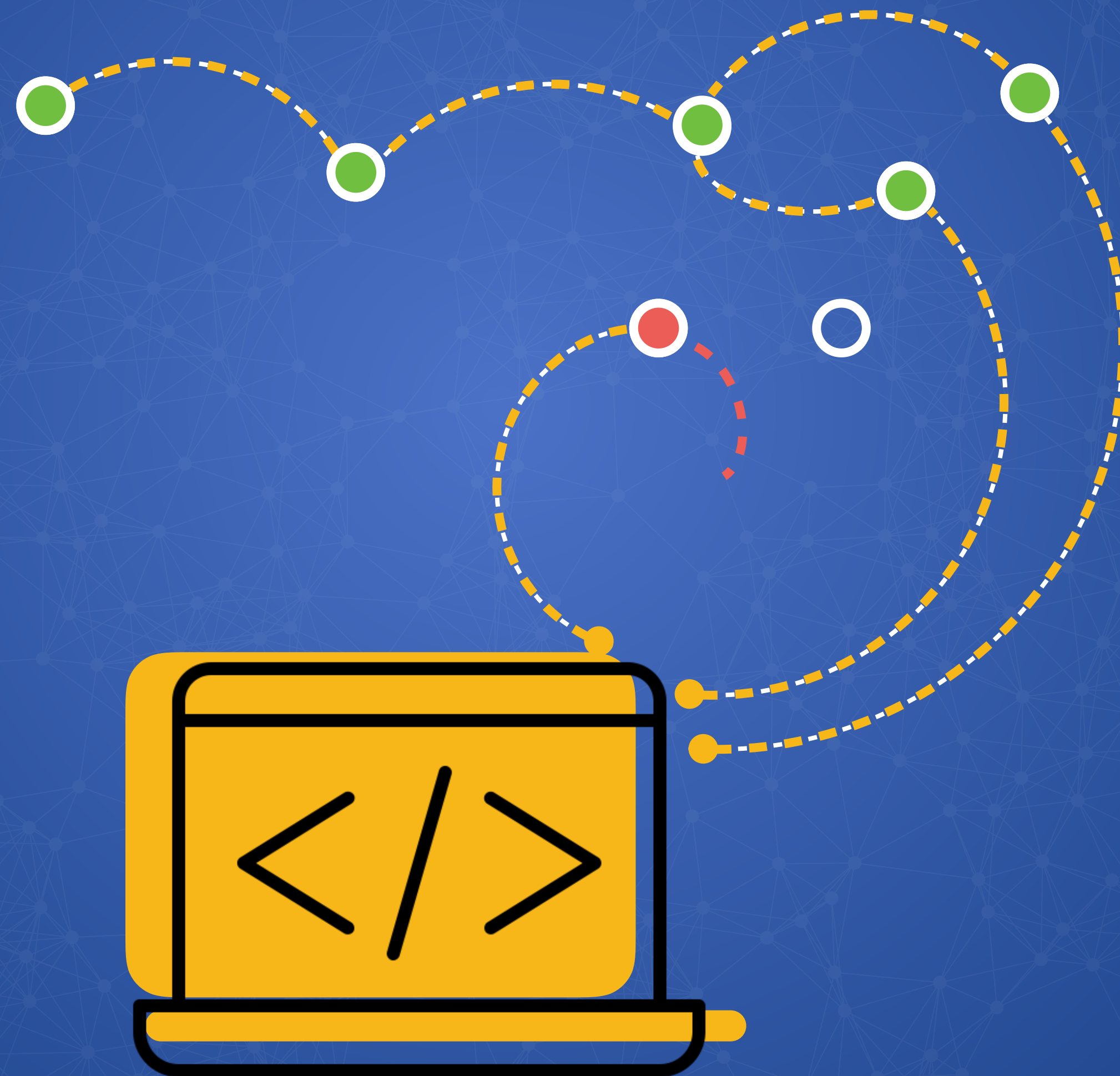
Detecting the problem



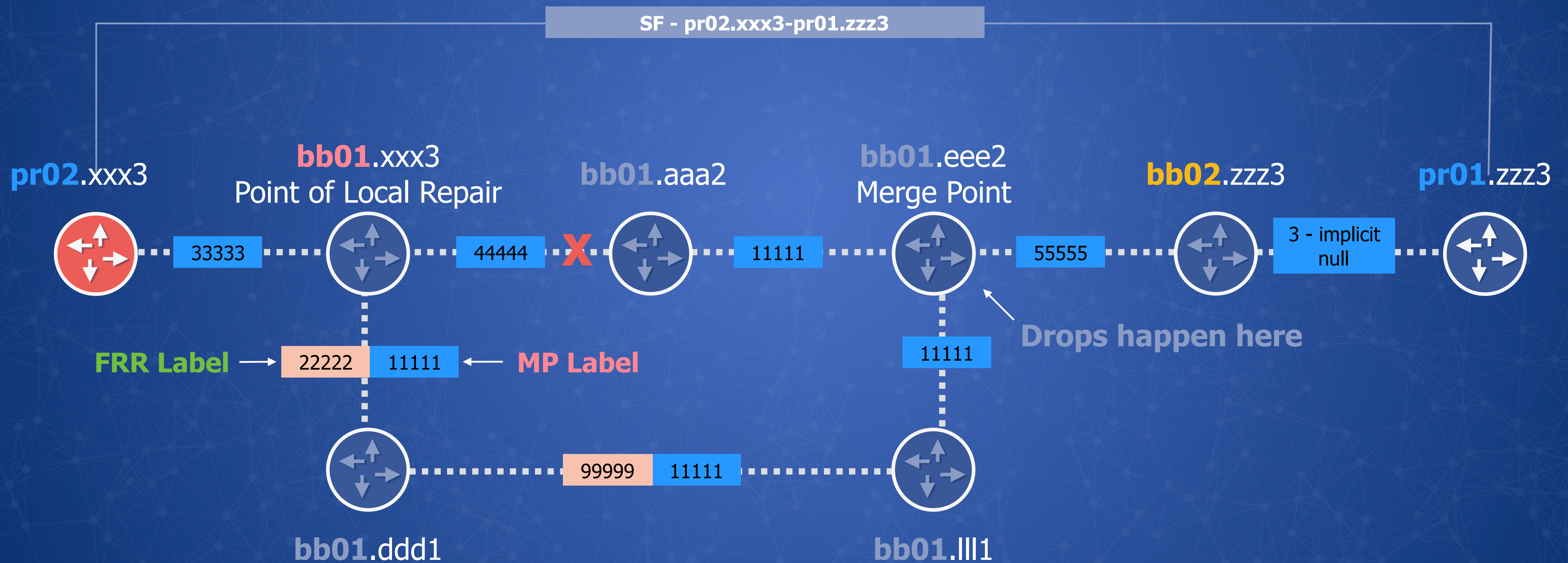
Analysis of dropped packets



Active Probing



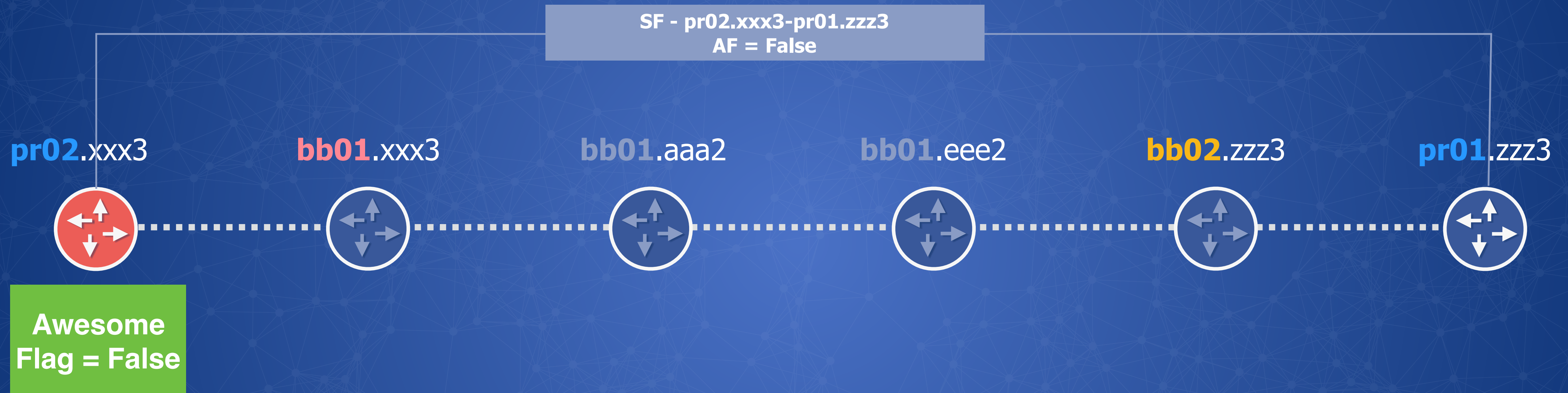
LSP with hops and labels



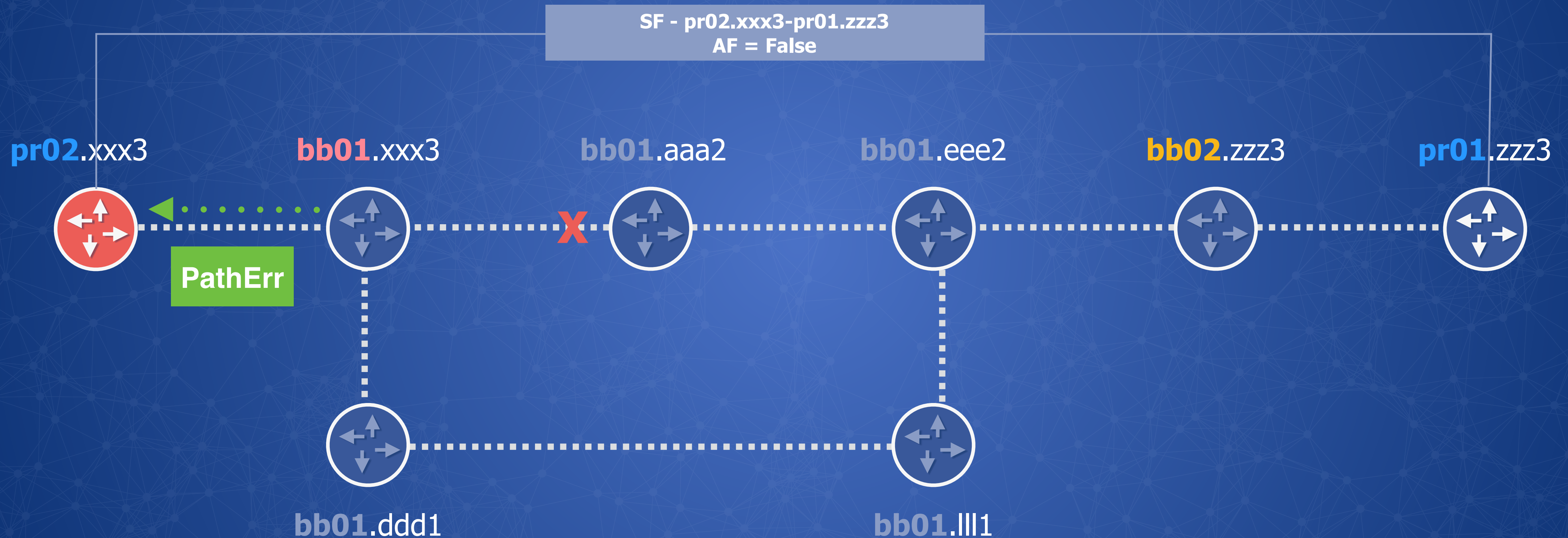
The background image shows the exterior of St. Basil's Cathedral in Moscow. The cathedral's architecture is characterized by its vibrant, multi-colored onion domes and intricate brickwork. In the foreground, two large, weathered bronze statues of figures, likely saints or historical figures, are visible. One statue on the left has its right arm raised, while the other in the center holds a book. The overall scene is set against a clear sky.

Fixing the problem

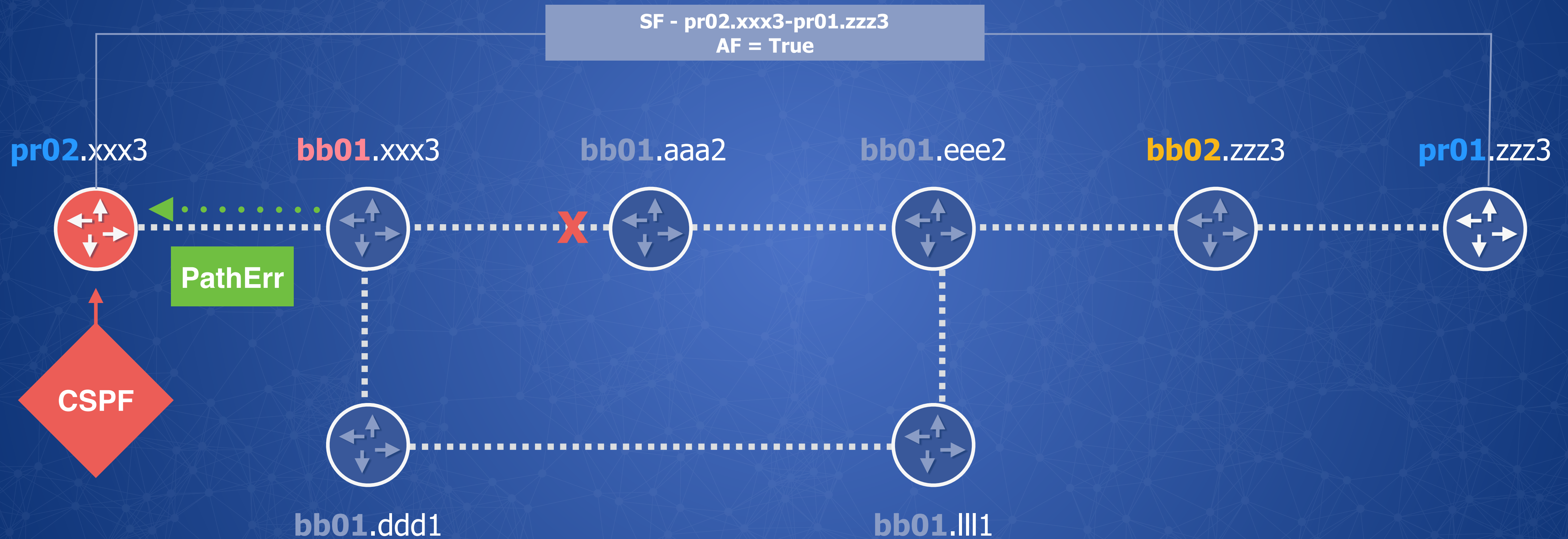
Bug #1 Global Revertive Mode is Broken in Vendor 1



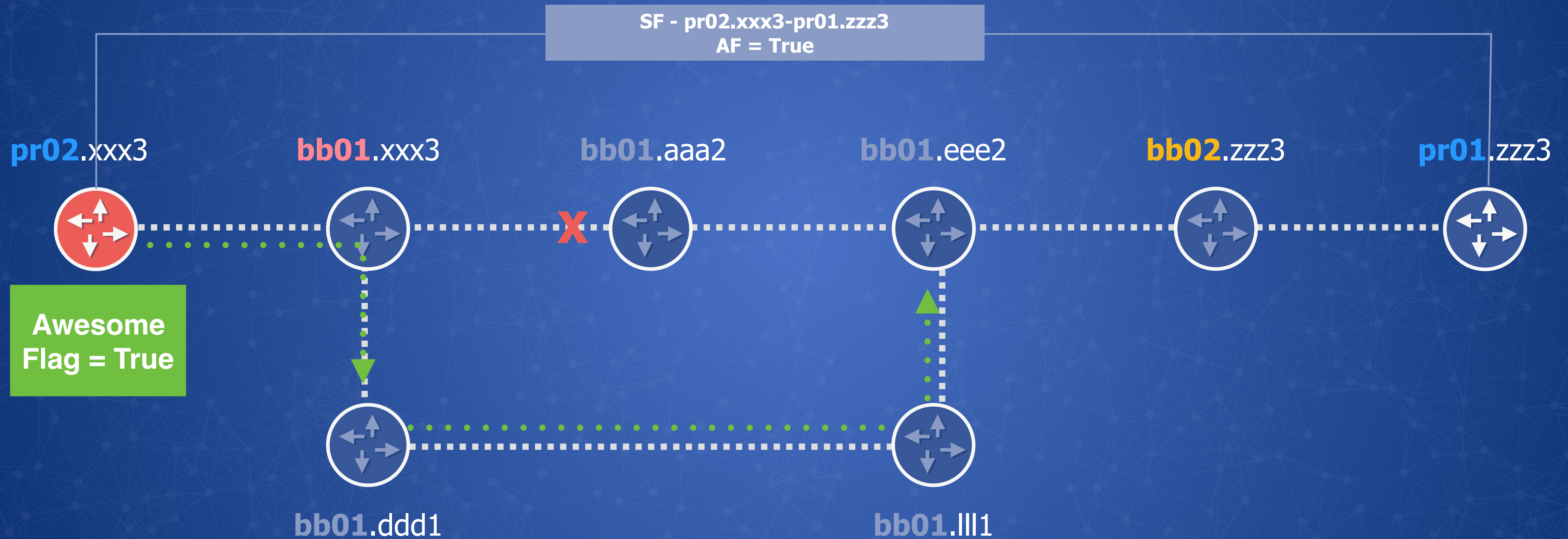
Bug #1 Global Revertive Mode is Broken in Vendor 1



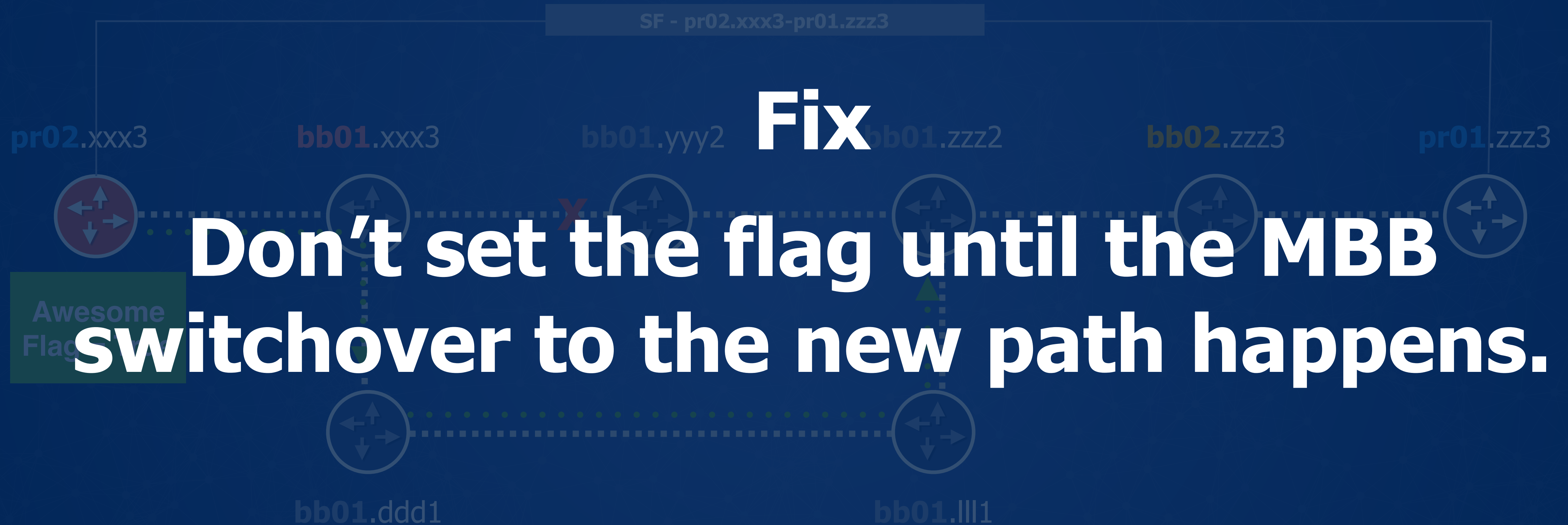
Bug #1 Global Revertive Mode is Broken in Vendor 1



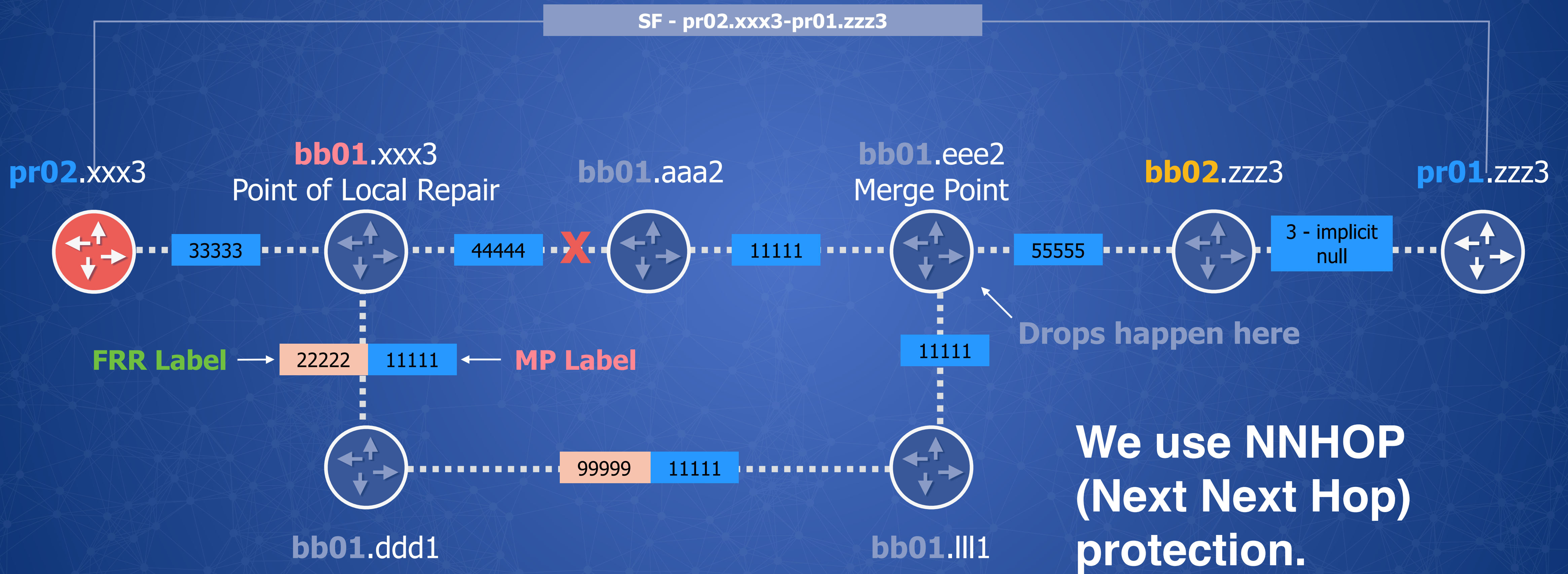
Bug #1 Global Revertive Mode is Broken in Vendor 1



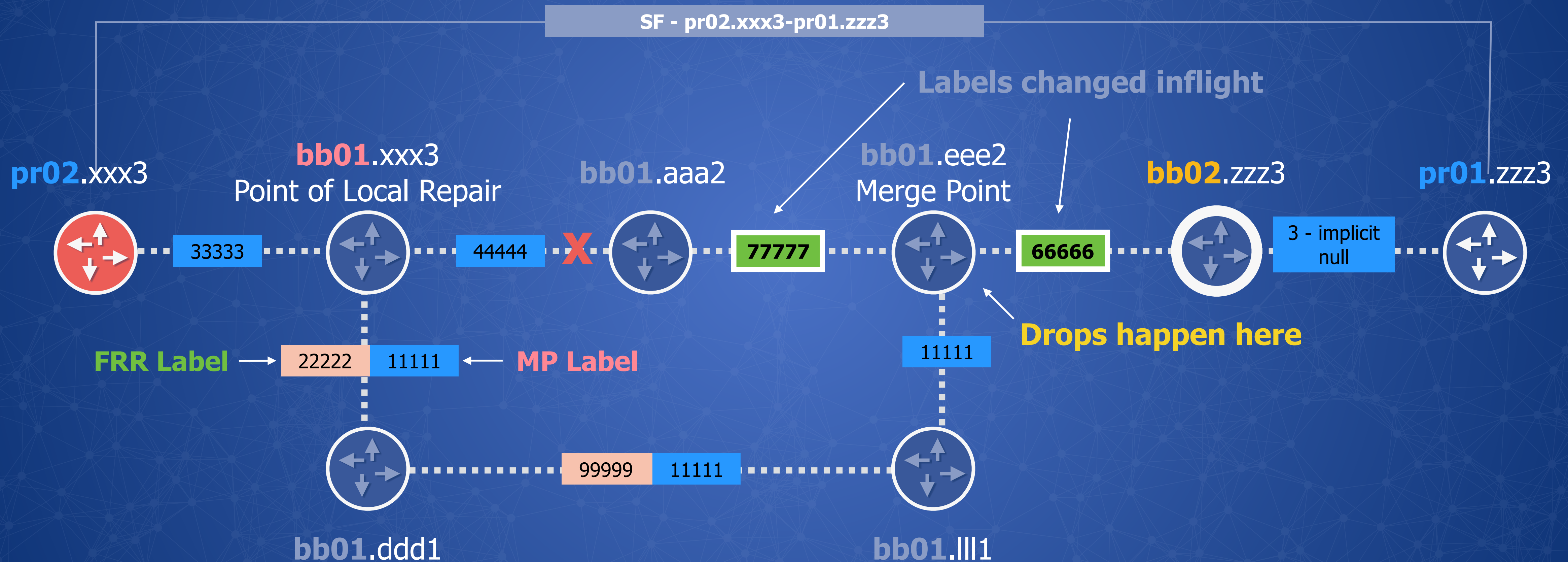
Bug #1 Global Revertive Mode is Broken in Vendor 1



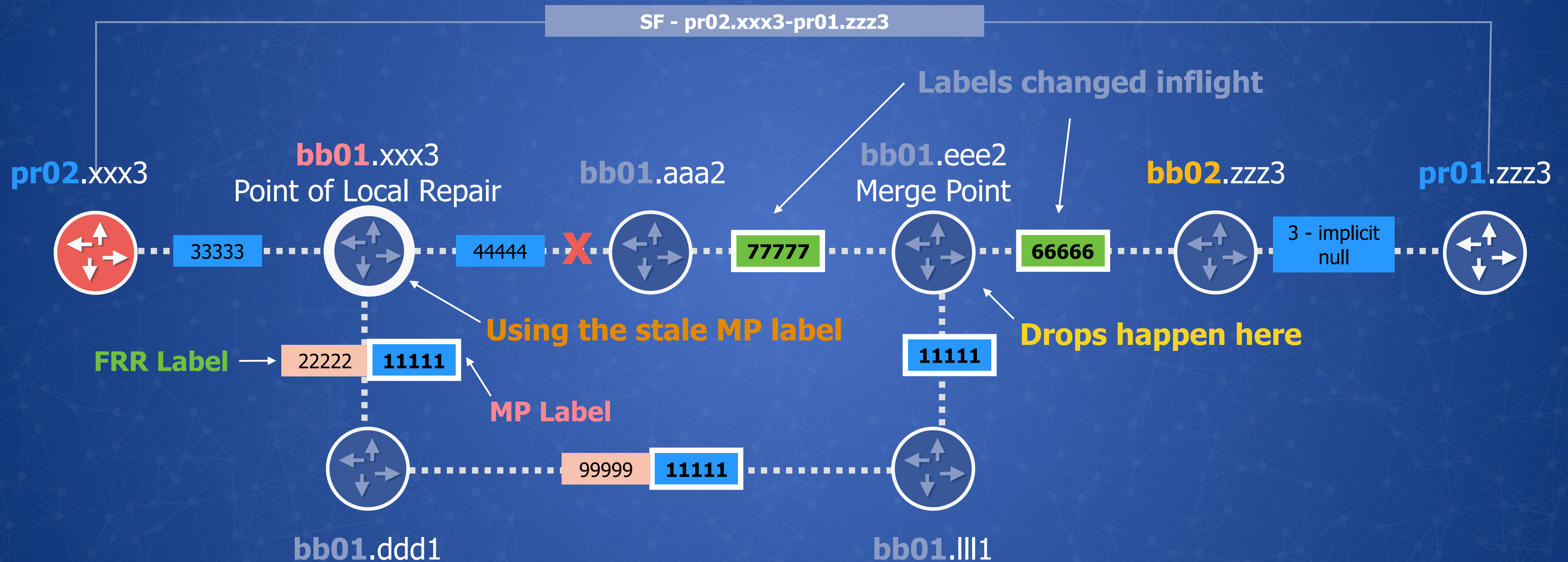
Bug 2: MP label change not honored by PLR



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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**

