

A tale of two labels



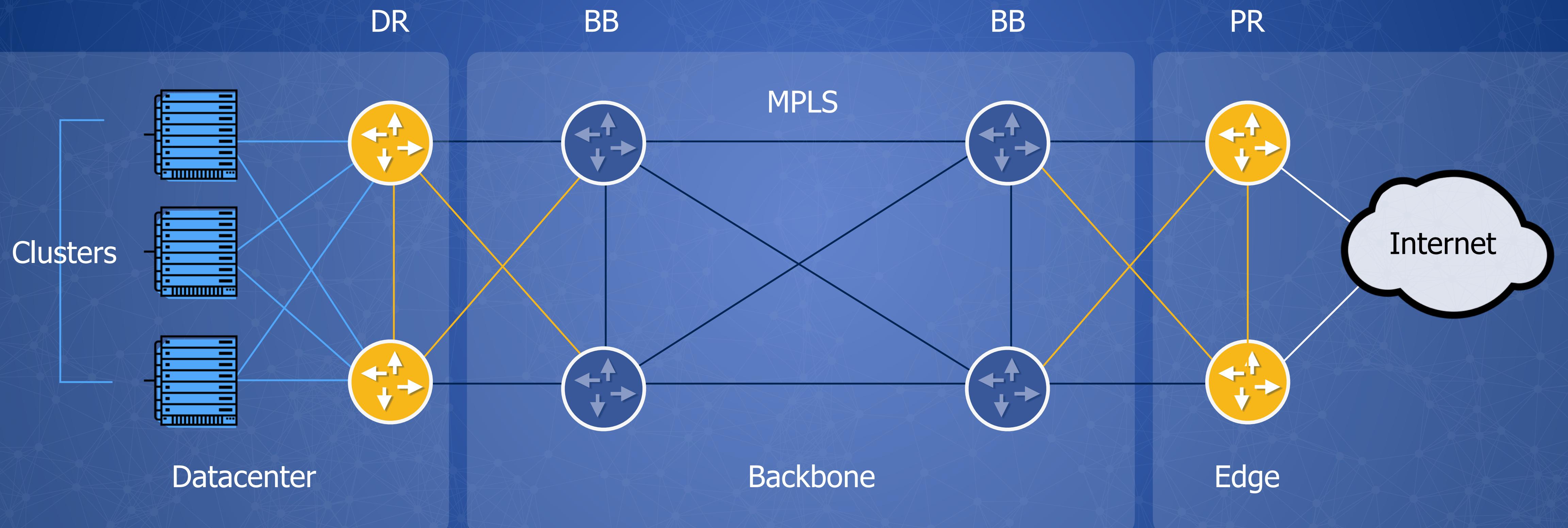
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Facebook scale / topology

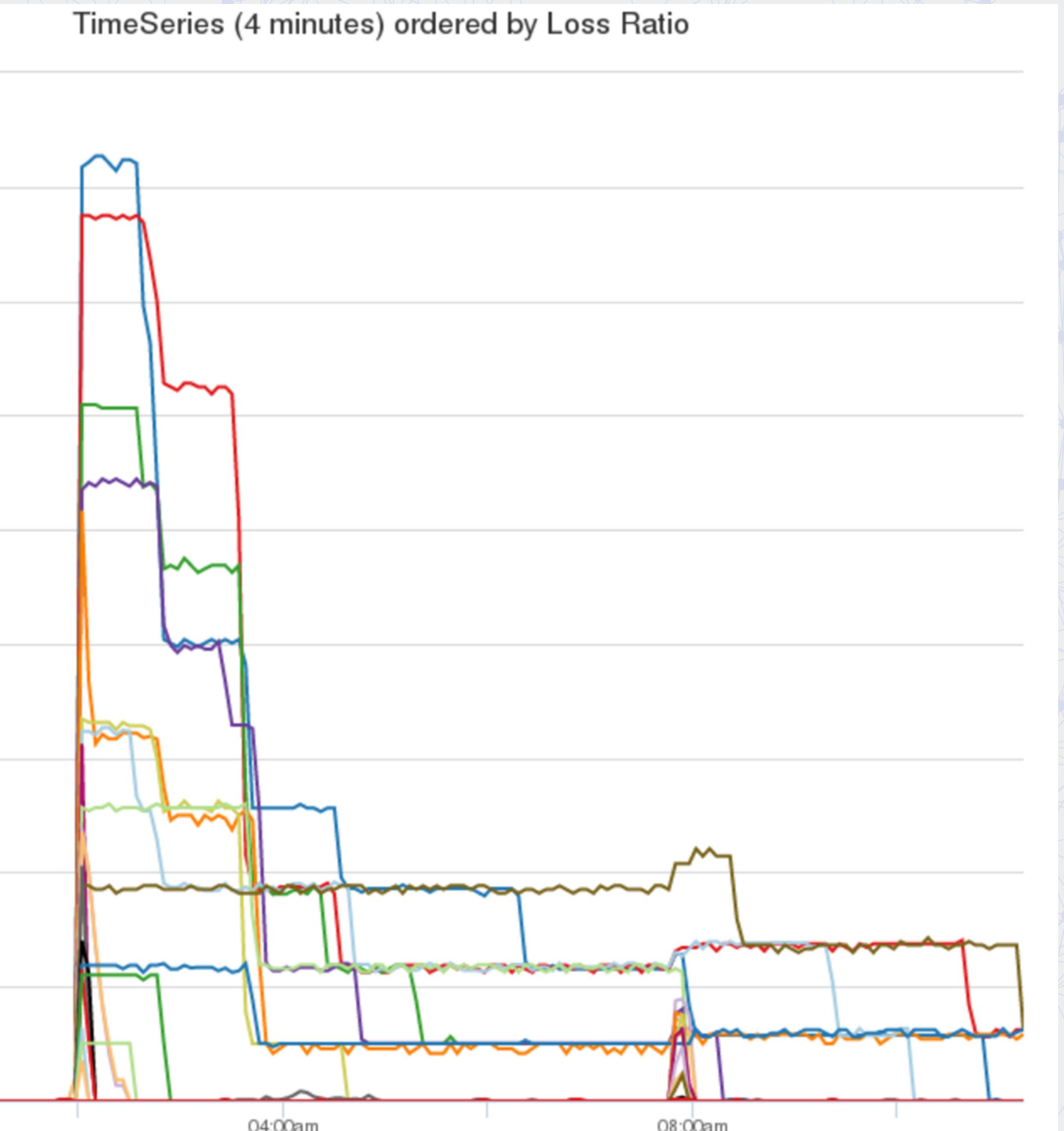
Topology



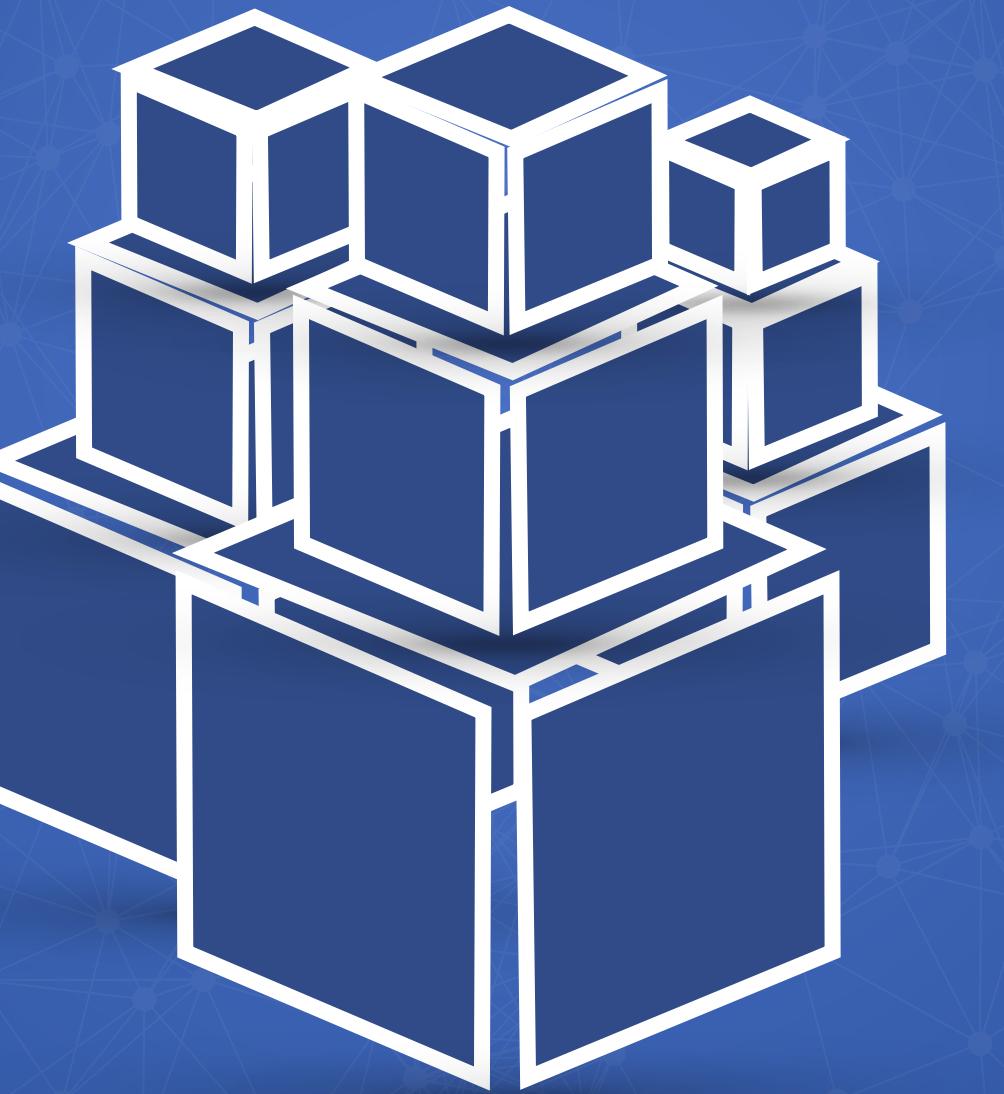
A photograph of a sailboat on the water, viewed from a low angle looking up at the masts and sails. The sails are partially collapsed, and the boat is tilted slightly to the left. The background is a hazy, overcast sky.

Investigation

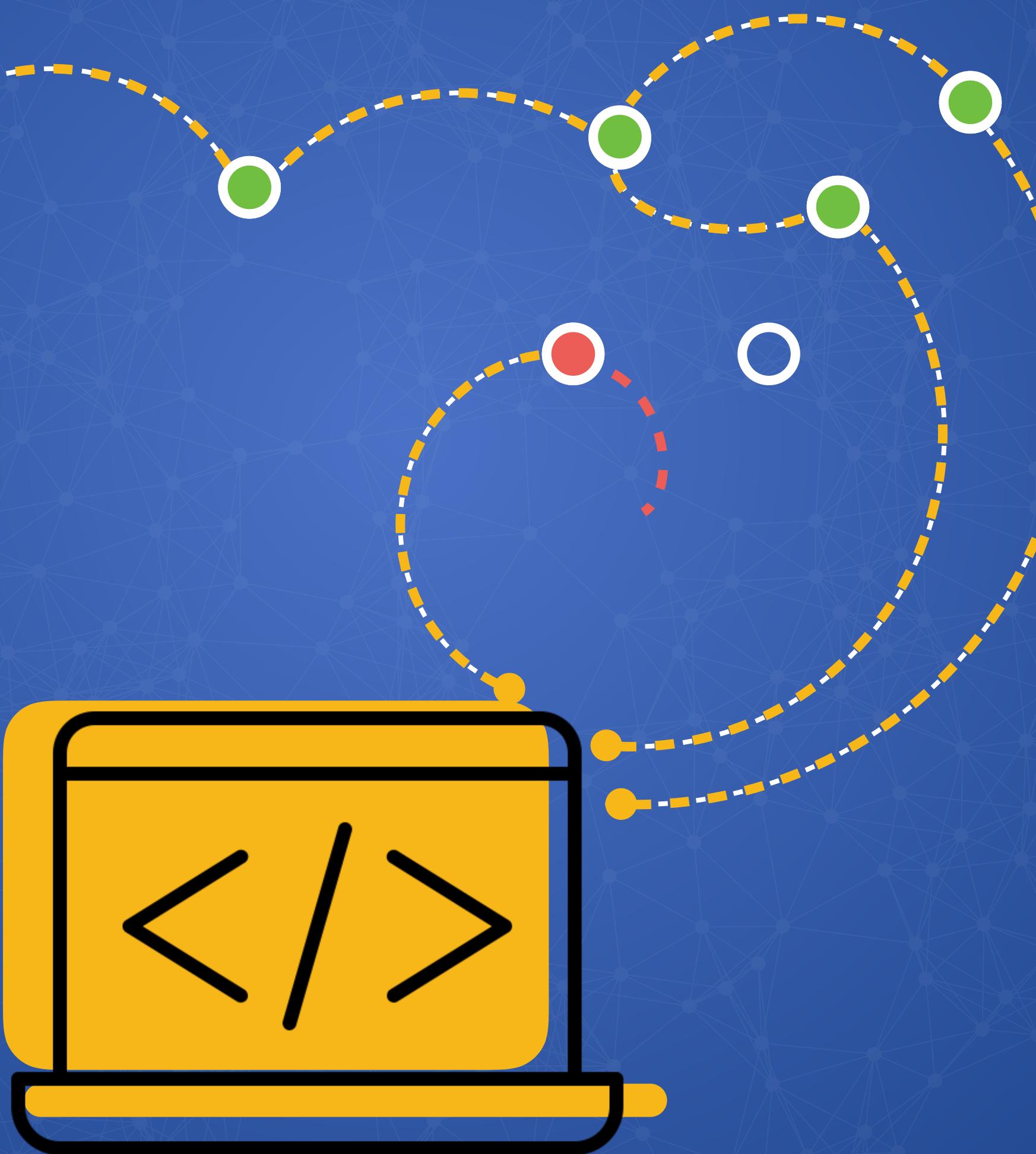
Detecting the problem



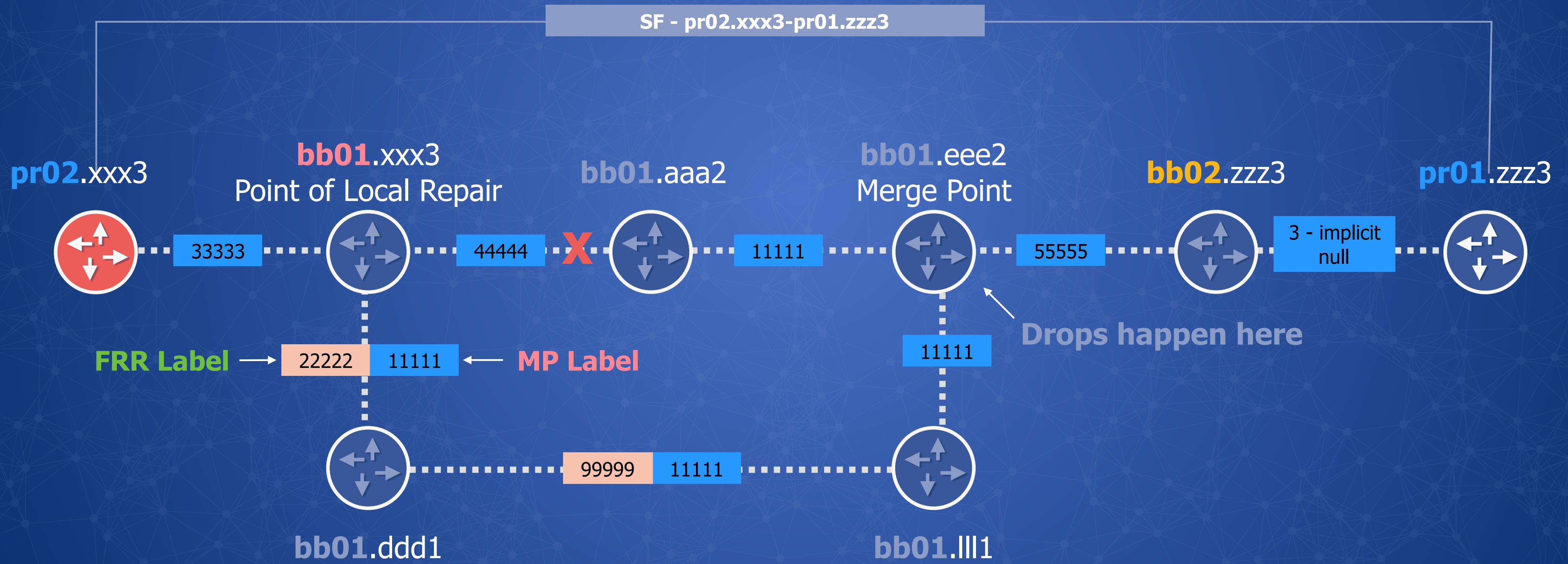
Analysis of dropped packets

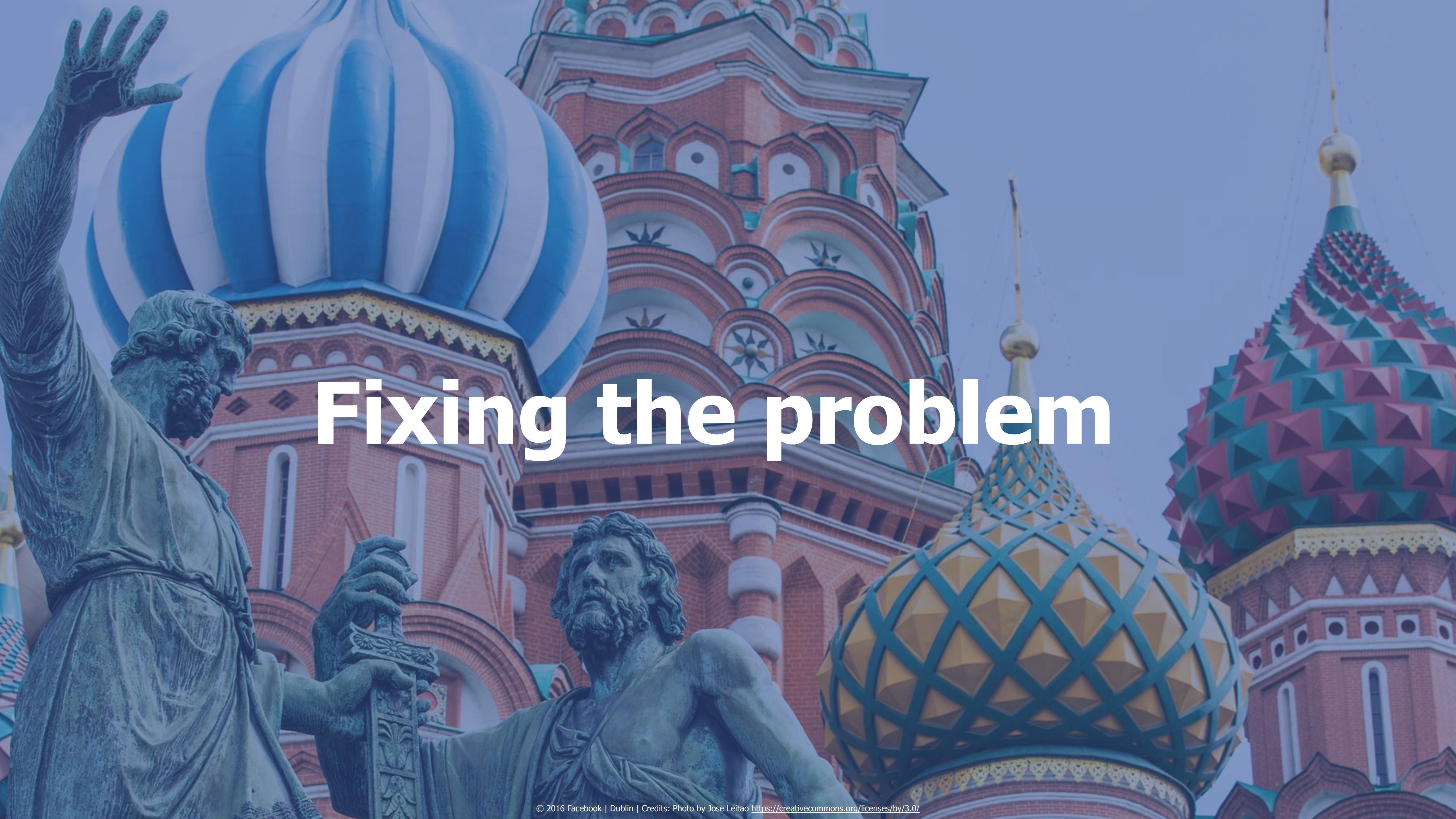


Active Probing



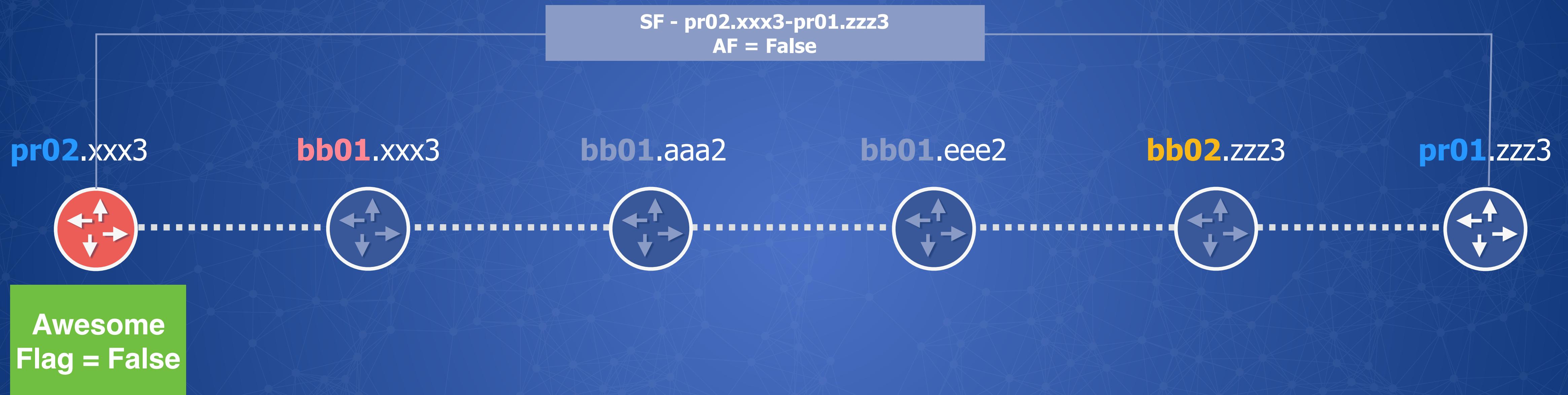
LSP with hops and labels



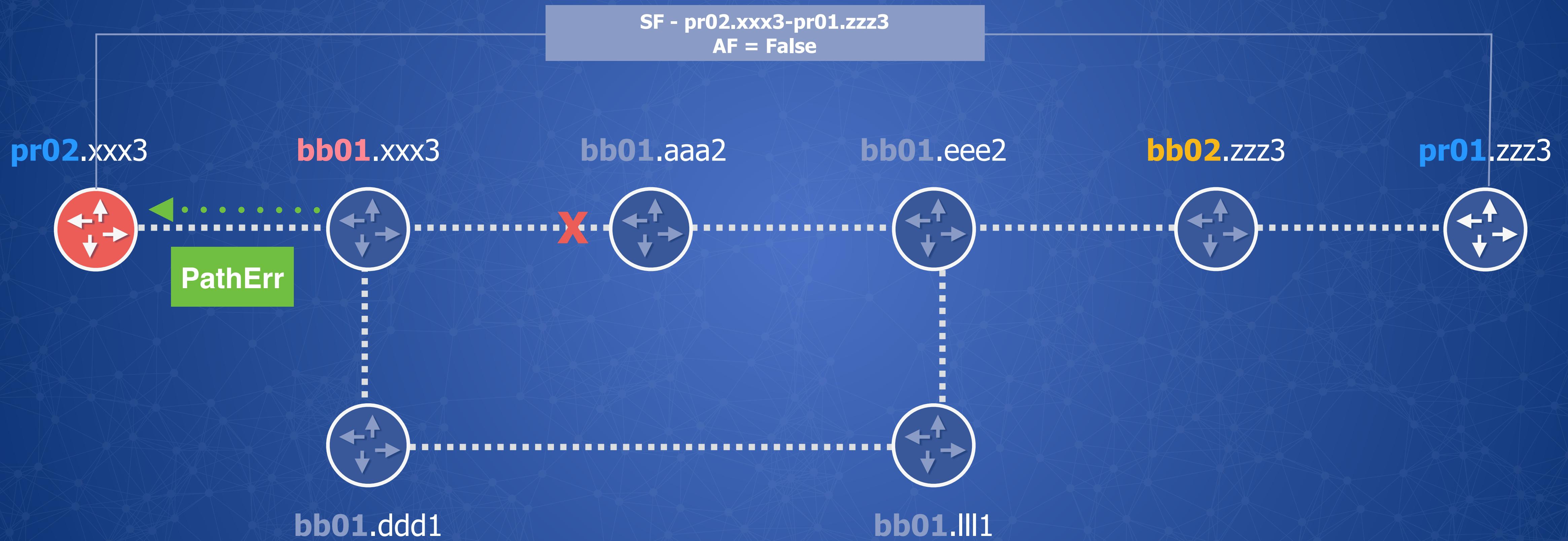


Fixing the problem

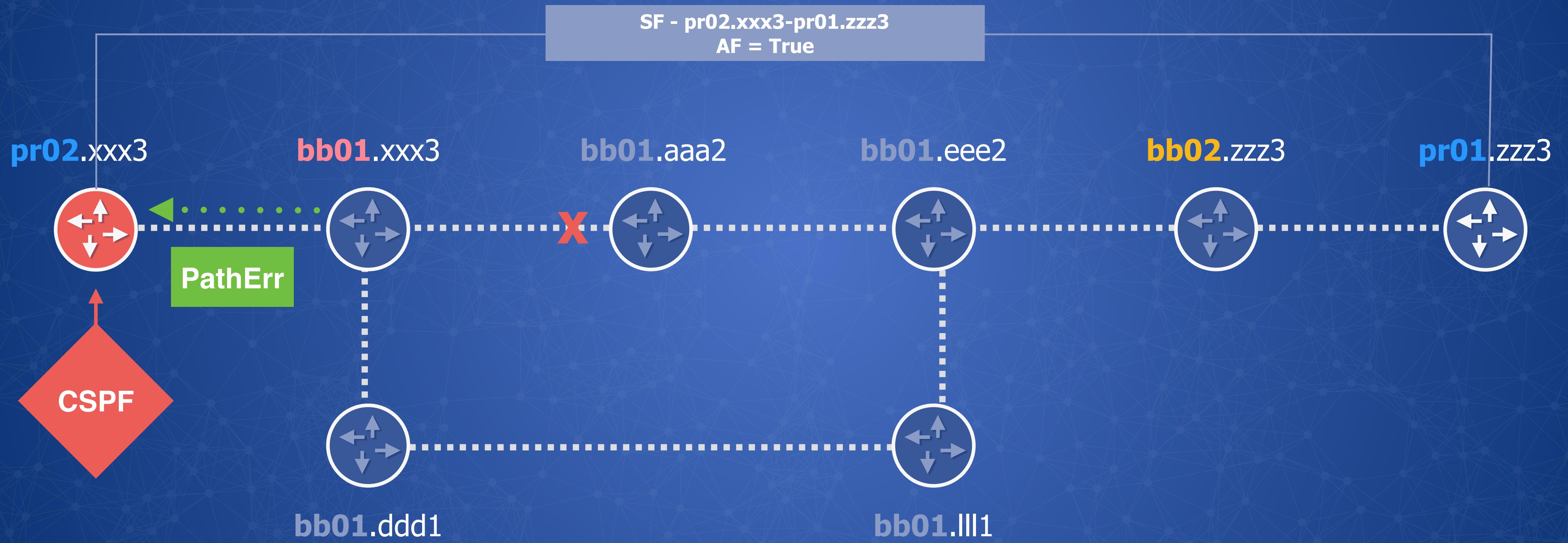
Bug #1 Global Revertive Mode is Broken in Vendor 1



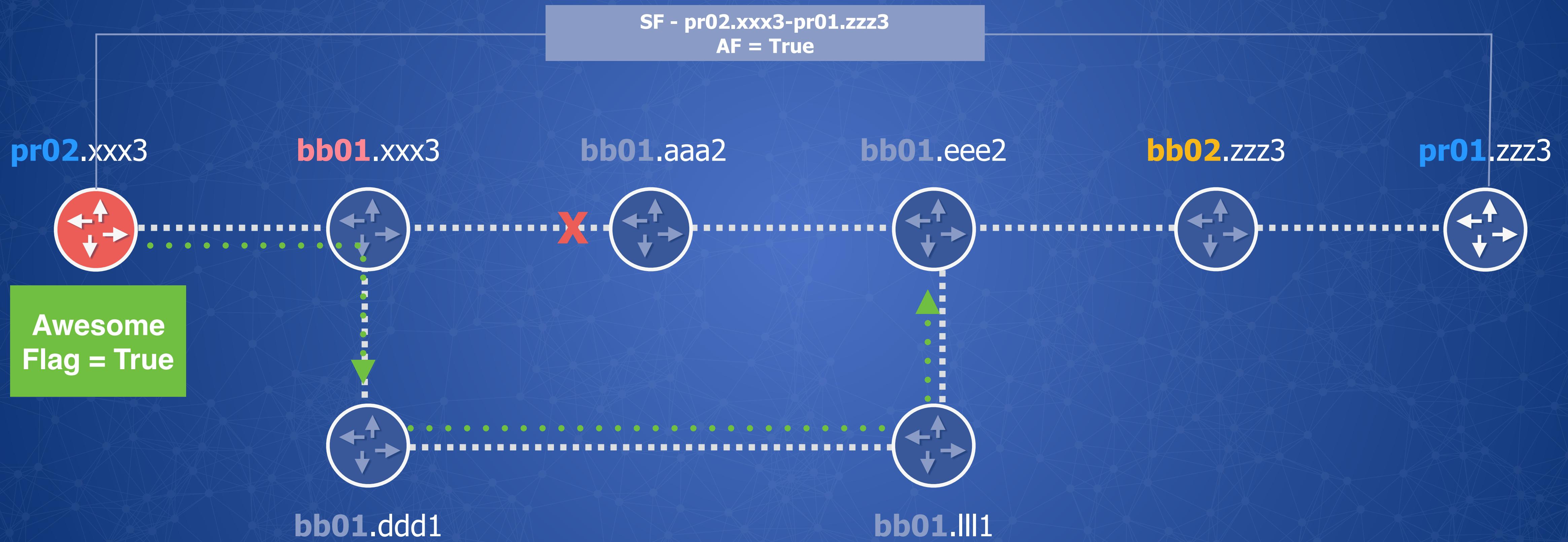
Bug #1 Global Revertive Mode is Broken in Vendor 1



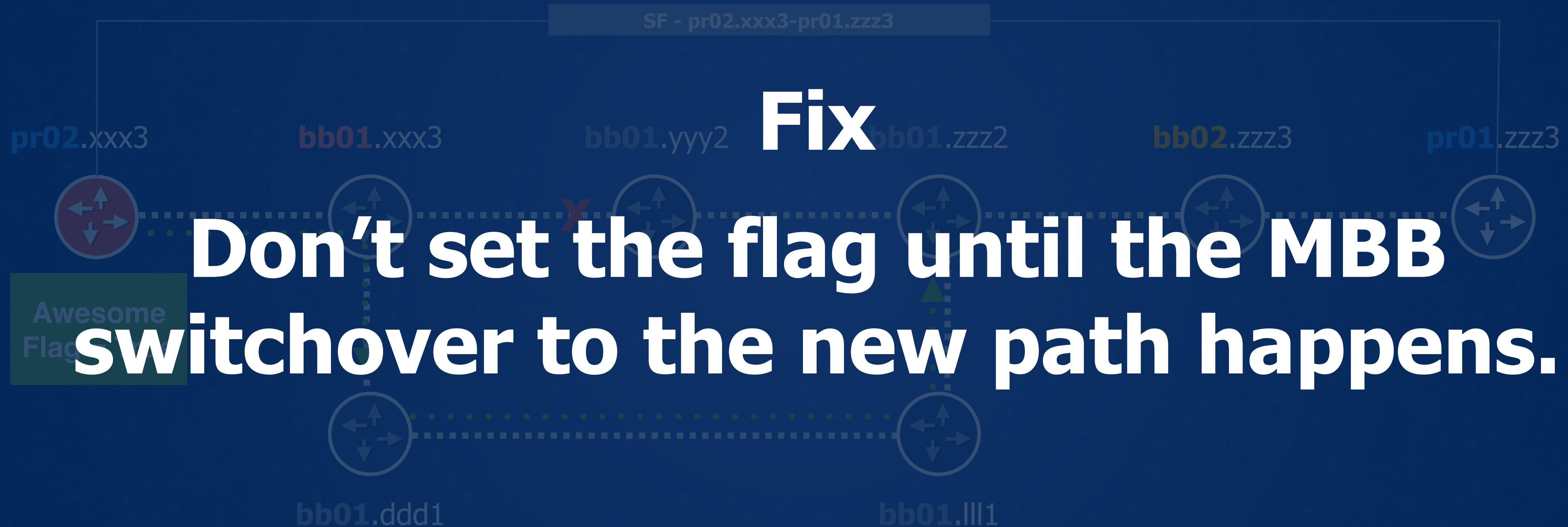
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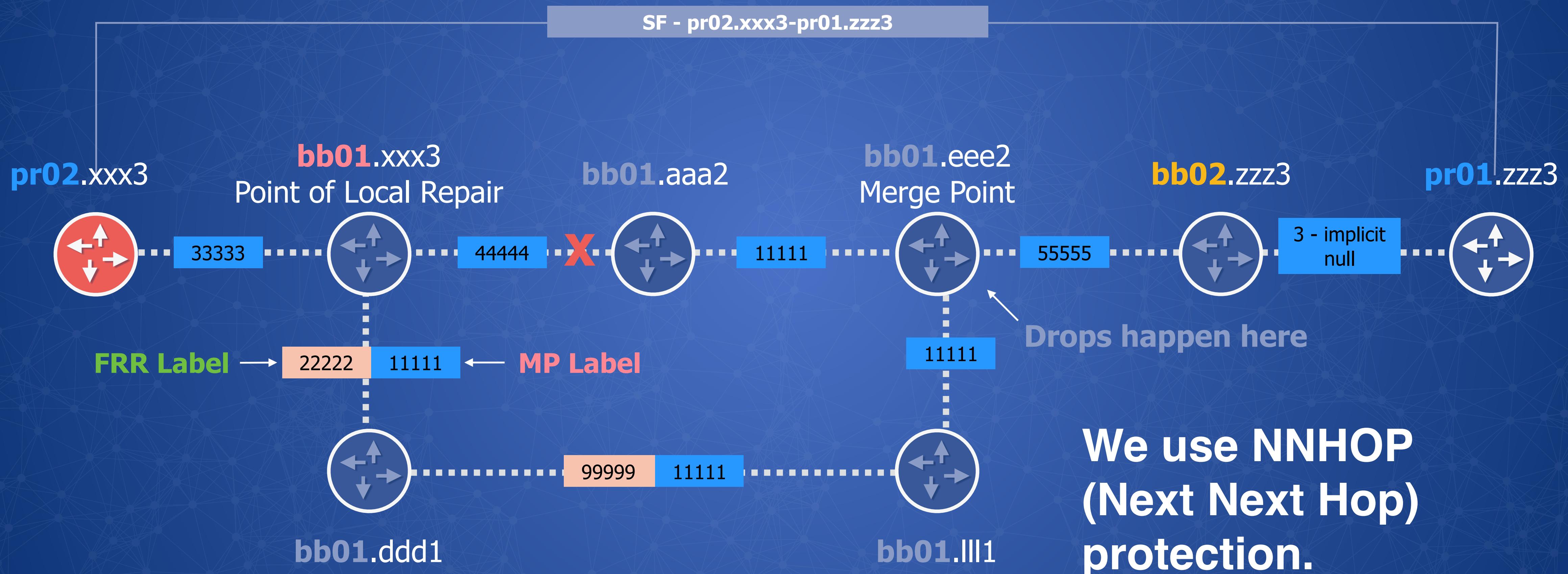
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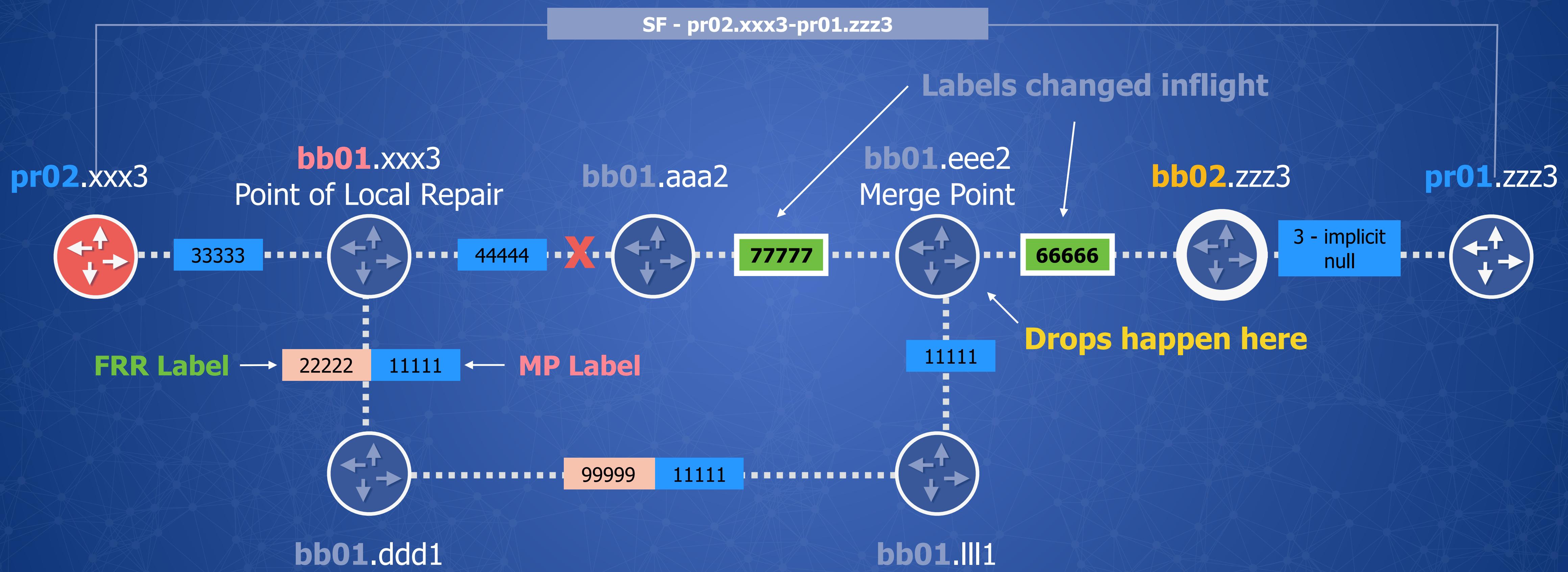
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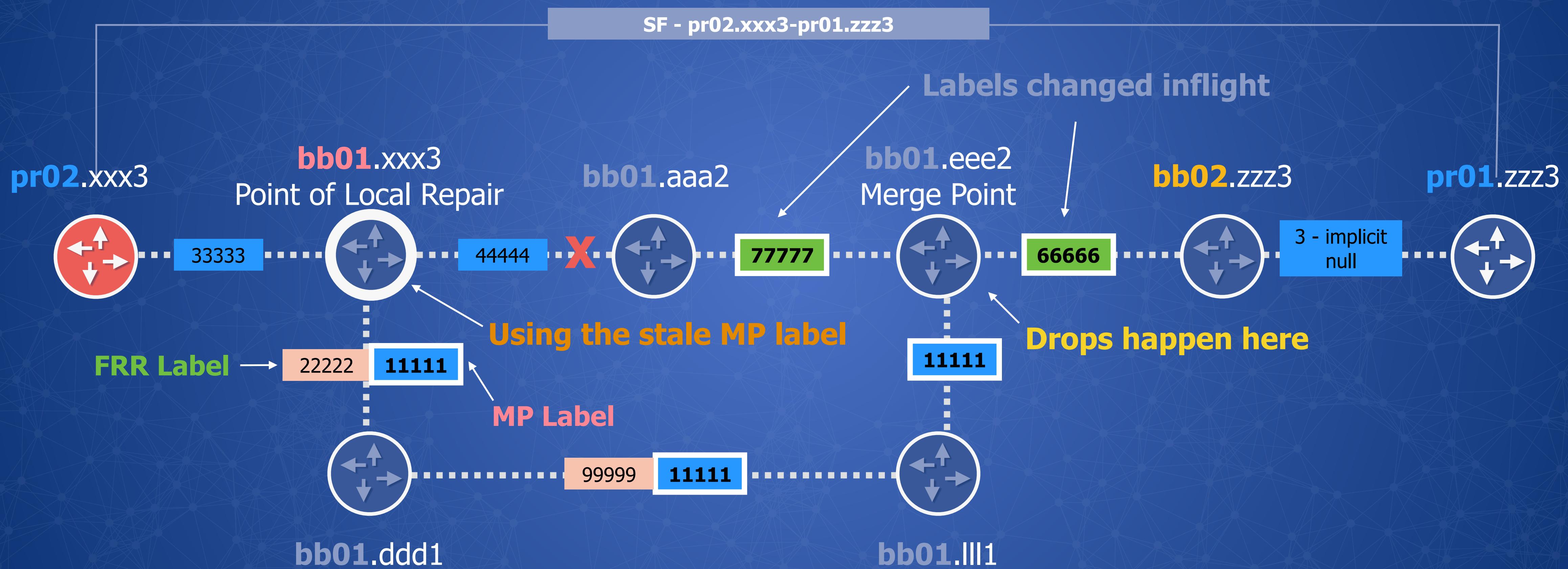
Bug 2: MP label change not honored by PLR



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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**

Lessons Learned

Lessons learned

Monitor end-to-end

Collect all the things

Failure != Impact

**Multivendor
is hard**

