

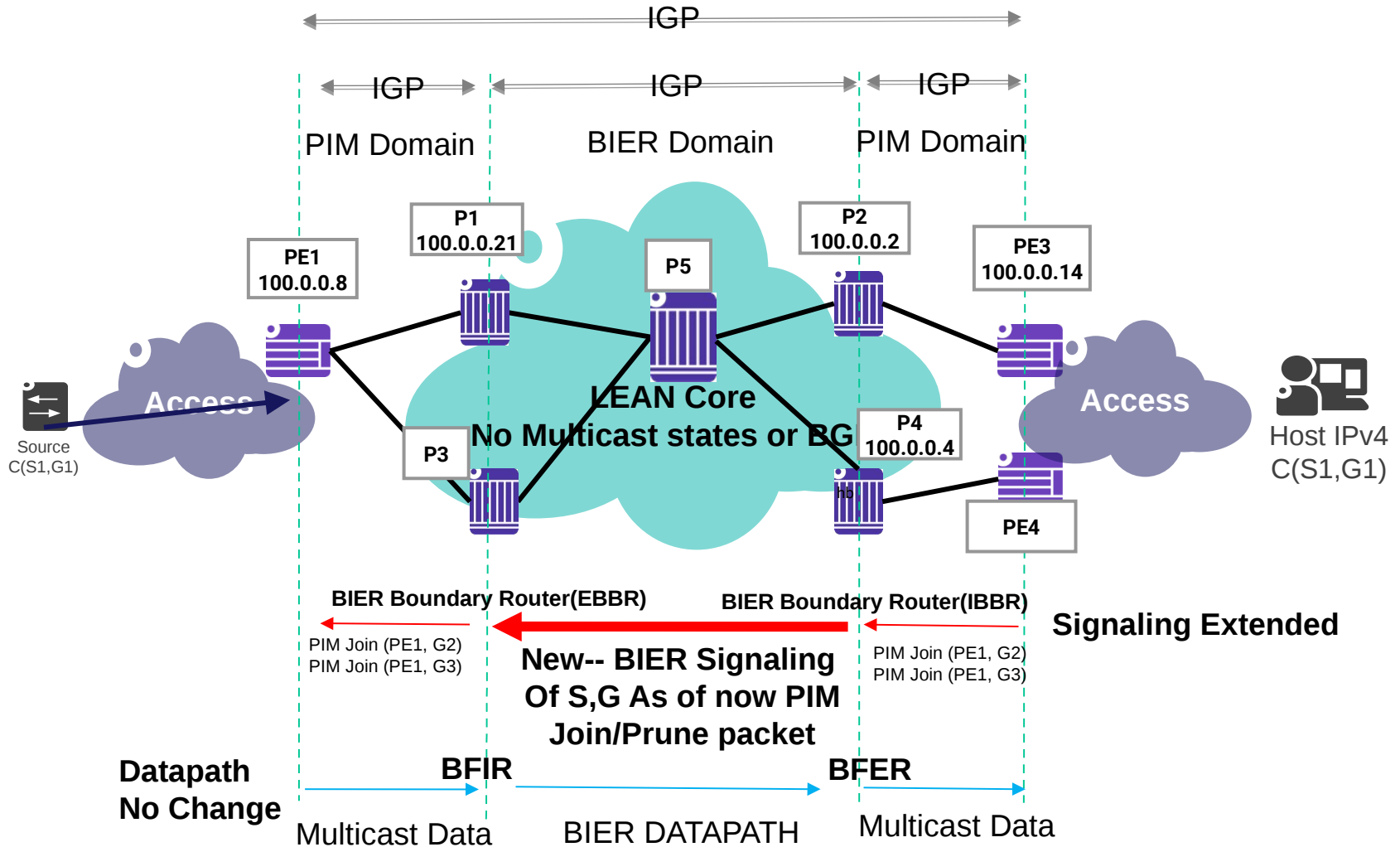
BIER PIM SIGNALLING

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UPDATE

- New co-authors
- A BIER WG document now
- Technical changes
 - Details on Discovery of EBBR (Egress Boundary BIER Router) on control plane

EBBR resolution



The solution PIM signaling over a BIER Core

- PIM signaling through a BIER core.
 - This draft is not proposing PIM neighboring through a BIER core
 - Much like mLDP In-Band Signaling (RFC6826)
 - Concentrating on SSM and extending to ASM.
- Control plane
 - PIM is terminated at BIER Boundary Routers (BBR), PIM adjacency between routers toward the PIM Domain.
 - If the source resides on the other side of BIER Domain, PIM Joins/Prunes are signaled via BIER Domain
 - The Egress BBR keeps track of all (S,G)s arriving and the BFR-ID which has forward the Joins/Prunes for specific (S,G).
 - The Egress BBR will build a multicast tree with IIF as PIM interface and OIF as <SD, BRF-ID)
- No Changes to Data plane
 - Multicast encapsulated in BIER header

EBBR resolution

- Resolution of EBBR on IBBR can be achieved via
 - Static route, adding a static route to Source on IBBR with next-hop EBBR
 - BGP, BGP neighboring between EBBR and IBBR. BGP re-distributing the Source with next-hop EBBR
 - Route summarization at EBBR, EBBR and IBBR acting as Area Boundary Router (ABR) generating summarize routes and/or generate new routes with advertising router field set to EBBR bier prefix-id.
 - CSPF, Using the BIER extension TLV to find the EBBR, IBBR can do a lookup for the source and ask for the closest EBBR on the path to the source.

Next Steps

- Solution considered complete
- Seeking Comments
- Intend to go LC after next IETF