

Basic BIER Functionality IPMSI Tunnel Establishment over BIER (Inclusive PMSI)

EANTC Transport & Cloud Networks Interop Test 2026

HPE

 **KEYSIGHT**

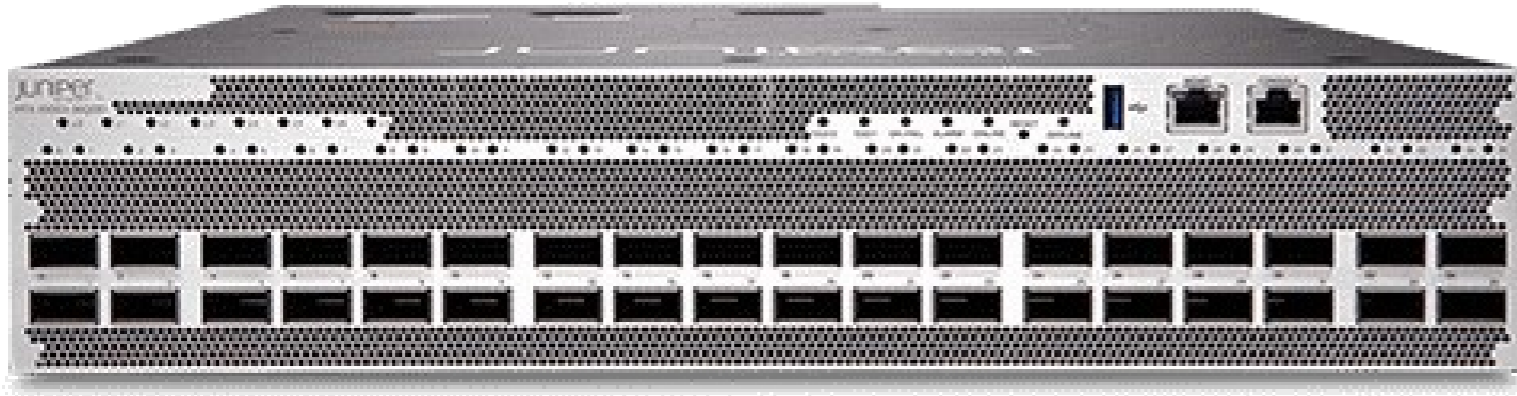
NOKIA



Test Purpose

To demonstrate NG-MVPN with BIER Inclusive Provider Multicast Service Interface (I-PM SI) functionality covering BFIR, Transit and BFER roles.

EANTC-2026 BIER Participants



JUNIPER
NETWORKS

PTX10002-36QDD

NOKIA



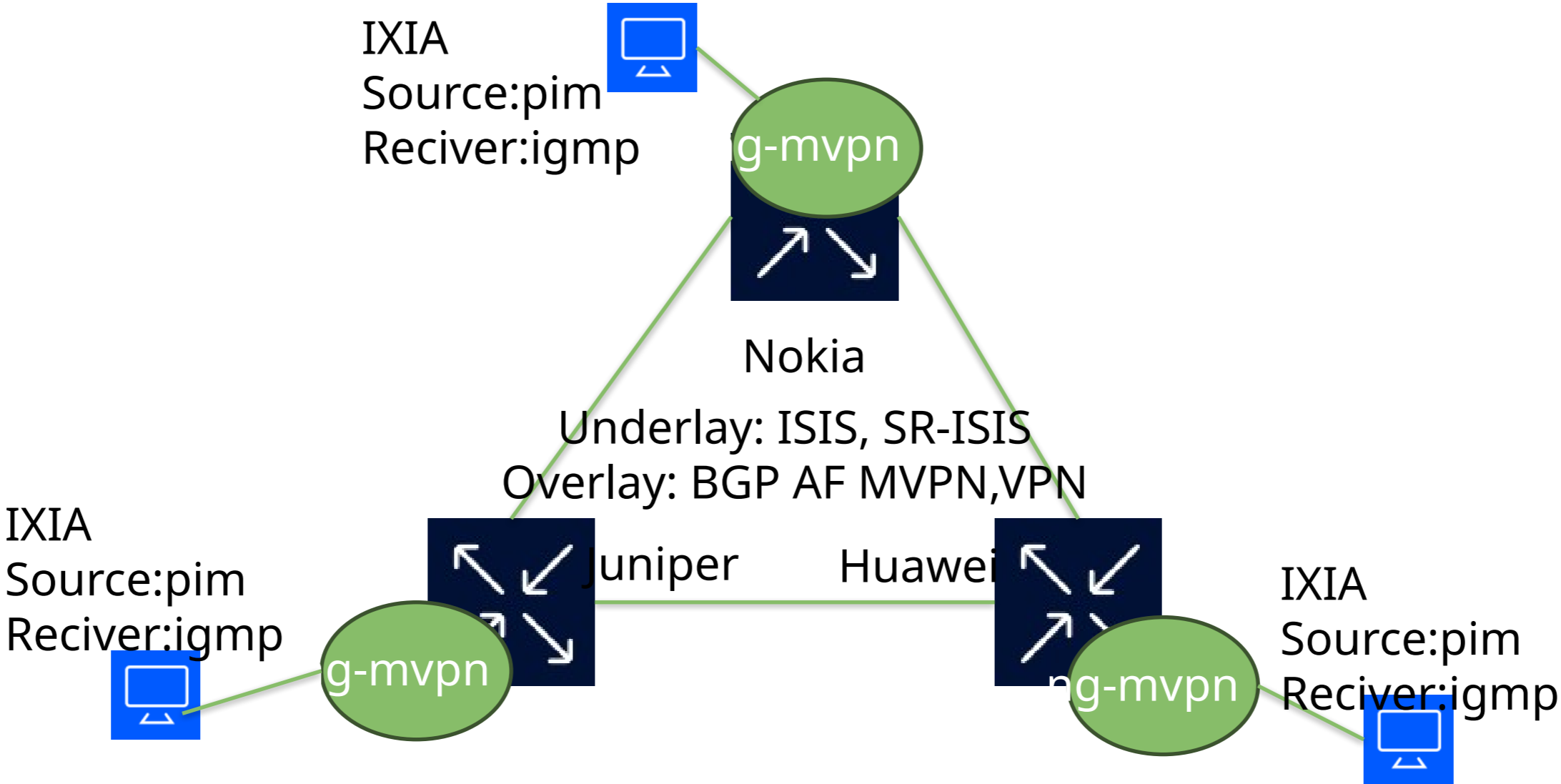
7750 SR-1



 **KEYSIGHT**

XGS2

What happened in 2025 Topology



2025 Interop Matrix

	Nokia	HPE	Huawei
Upstream assigned NG-MVPN label	Yes	No	yes
BIER next protocol = 2	Yes	No	Yes
Downstream assigned NG-MVPN label	No	Yes	No
BIER next protocol =1	No	Yes	No
MP-BGP using Domain-wide Common Block (DCB) label RFC9573	Yes	Yes	Yes

Result:

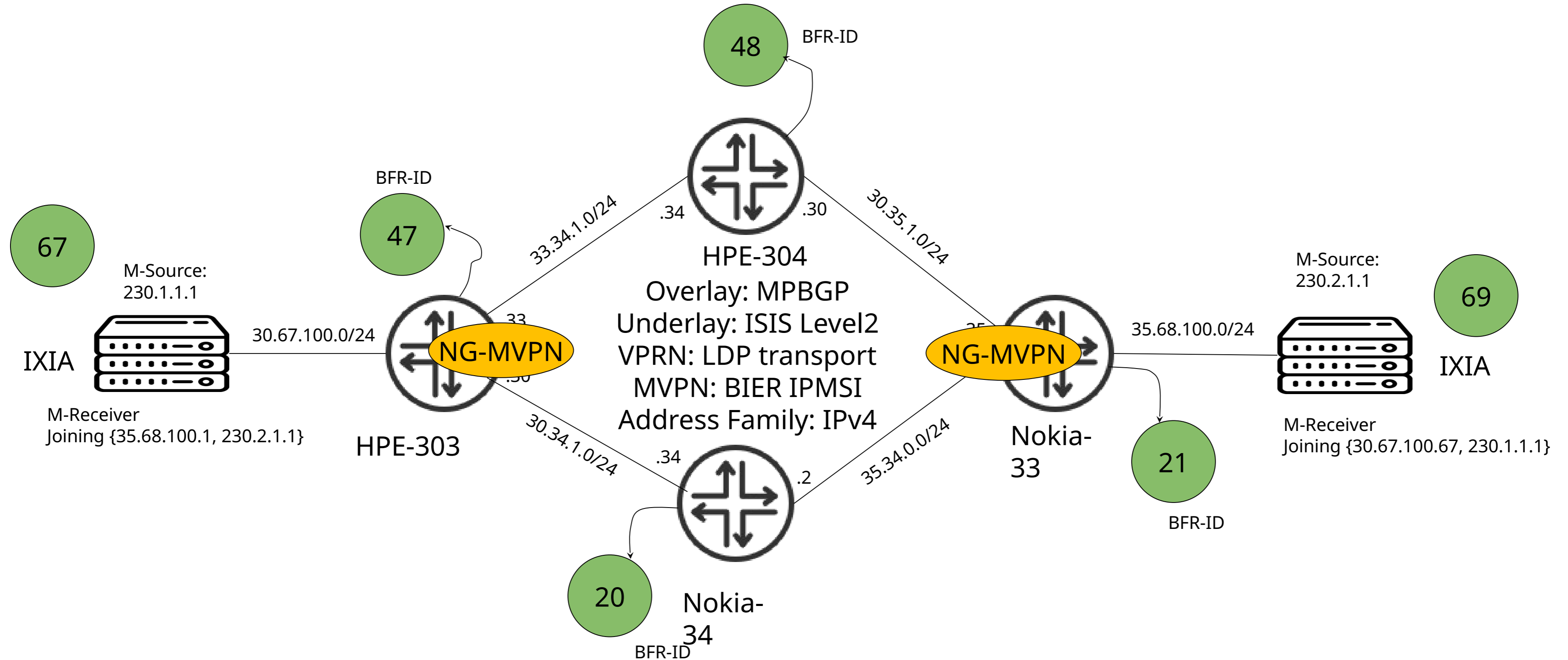
Vendors as transit BFR:

All vendors can interop as transit BFR routers with keysight sending BIER traffic and Nokia, HPE, Huawei acting as transit routers.

Nokia and Huawei: Full NG-MVPN interop is possible over BIER IPMSI as both understand BIER Next Protocol 2

HPE: Neither Nokia nor Huawei could interop with HPE, as datapath on all routers discarded the incompatible BIER Next Protocol. HPE could act as transit router in this test.

2026 Topology



2026 Interop Matrix

	Nokia	HPE
Upstream assigned NG-MVPN label	Yes	NO
BIER next protocol = 2	Yes	No
Downstream assigned NG-MVPN label	<u>No</u>	Yes
BIER next protocol =1	Yes (Via configuration, Nokia accepts and sends BNP = 1)	Yes
MP-BGP using Domain-wide Common Block (DCB) label RFC9573	Yes	Yes
DCB location in the PTA label field	Configuration allows lower or upper 20 bit	Upper 20 bit

Result:

Nokia and HPE: Fully interop with NG-MVPN and DCB, while Nokia still uses upstream assigned NG-MVPN PTA label (context specific) and HPE uses down stream assigned NG-MVPN PTA label (global specific)

Question Remains: Is separation of BIER Next Protocol (BNP) is really needed as it seems to just cause complexity as can be seen by ENTC testing.

Test Purpose

Thank You