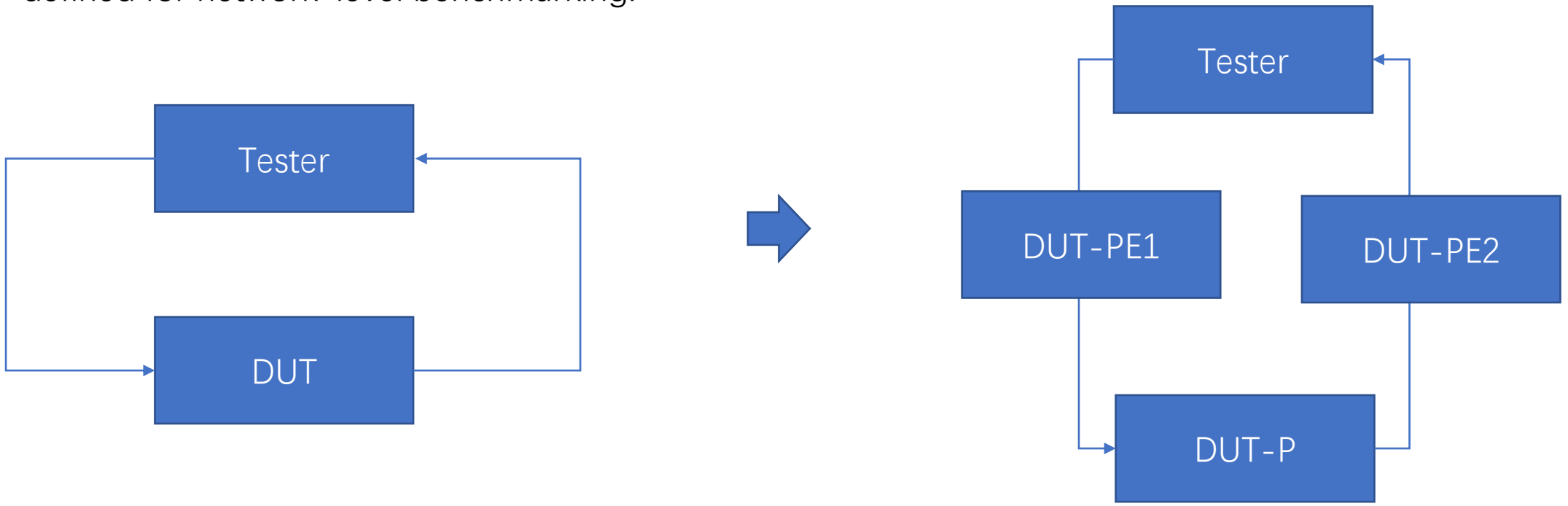
SRv6 Service Benchmarking Guideline

draft-geng-bmwg-srv6-service-guideline

BMWG, IETF 120, Vancouver

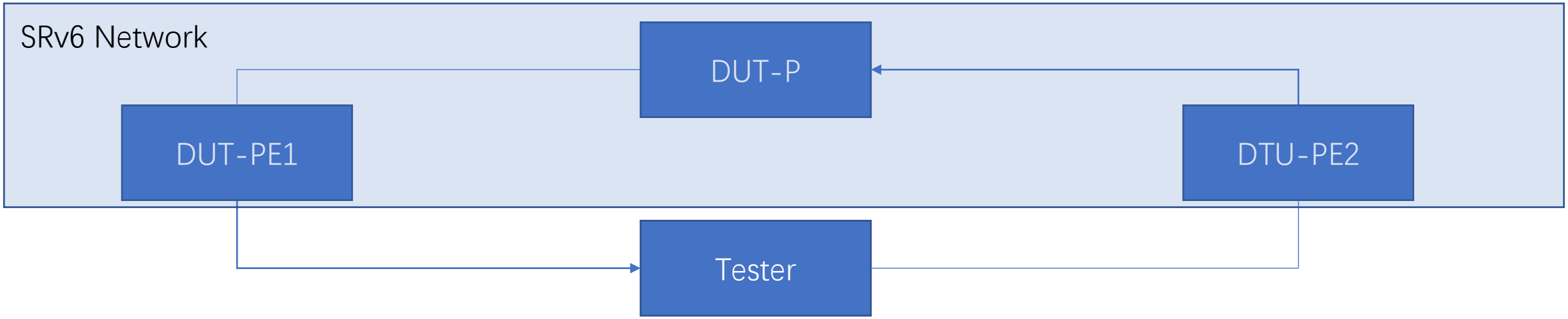
More than RFC2544?

- RFC2544 defines a number of tests to describe the performance characteristics of a network interconnecting device, which is widely used for **single device**.
- In addition to single-device benchmarking, **network-level benchmarking** is also critical for operators. This can provide valuable reference points for on-net testing, which is essential work.
- Similar tests and performance characteristics, **like throughput, latency, packet loss rate**, could be defined for network-level benchmarking.



Take SRv6 as An Example: from single device to service

- draft-ietf-bmwg-sr-bench-meth has defined the SRv6 behavior in data plane of **singe device**
- Segment Routing specific report parameters are defined, for example:
  - Number of Segments considered in the SID list.
  - Behavior (H.Encaps, etc.) and Flavor (PSP, USP, USD) used for SRv6 tests (according to [RFC8986]).
- Based on the existing work, we are trying to propose the benchmarking of **SRv6 service** capability, which means different types of services could be transported through **SRv6 network**.



SRv6 Service Benchmarking

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SRv6 Best Effort Service

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Internet Service
- Global IPv4 over SRv6 network
- Global IPv6 over SRv6 network

Layer 3 Service over SRv6
- IPv4 VPN over SRv6 network
- IPv6 VPN over SRv6 network

Ethernet VPN (EVPN) over SRv6
- Layer2/Layer3 VPN over SRv6
- VPWS VPN over SRv6

SRv6 Traffic Engineering Service

SRv6 Policy without Compression

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RFC 9252: BGP Overlay Services Based on Segment Routing over IPv6 (SRv6)

Next Steps

- Defines tests and performance characteristics for each case
- Comments and collaborations are welcome.

Thanks