Routers convergence benchmarking

draft-papneja-bgp-basic-dp-convergence-02
draft-varlashkin-router-conv-bench-00

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Current status

- draft-papneja-bgp-basic-dp-convergence-02
  - data-plane only
  - assumes fwd ability implies BGP convergence
- draft-varlashkin-router-conv-bench-00
  - mentioned @IETF81, now published
  - works with independent data- and control-planes
- The two drafts complement each other

Two drafts side-by-side

draft-papneja-bgp-basic-dp-convergence-02	draft-varlashkin-router-conv-bench-00
Assumes: FWD ability == protocol converged	Assumes forwarding ability and protocol convergence are independent
Data-plane measurement	Data-plane for forwarding ability, control-plane for (protocol) status propagation
Covers BGP setup; IGP is out of scope	Primarily intended for BGP + some IGP, with or without MPLS
Tests: RIB-In, RIB-Out, iBGP, eBGP (direct and multi-hop)	Tests: intrinsic delays of the test setup, generic data-plane, generic control-plane. Both iBGP and eBGP can be tested.
Failure scenarios: Physical link failure on DUT/Remote end, ECMP Link failure on DUT end, BGP session failure, BGP hard reset, BGP soft reset, BGP route withdrawal, BGP Path attribute change, BGP Graceful restart	Failure scenarios: direct link failure with and without LoS, non-direct link failure, next-hop failure, best route withdrawal.

Work roadmap

- Reality alignment
  – ensure methods deliver values that people want to know

  – assert feasibility

- Fine-tune methodology
  – eliminate (most of) dependency on non-DUT

  – define equipment config in generic terms

- Sort out terminology

Test topology
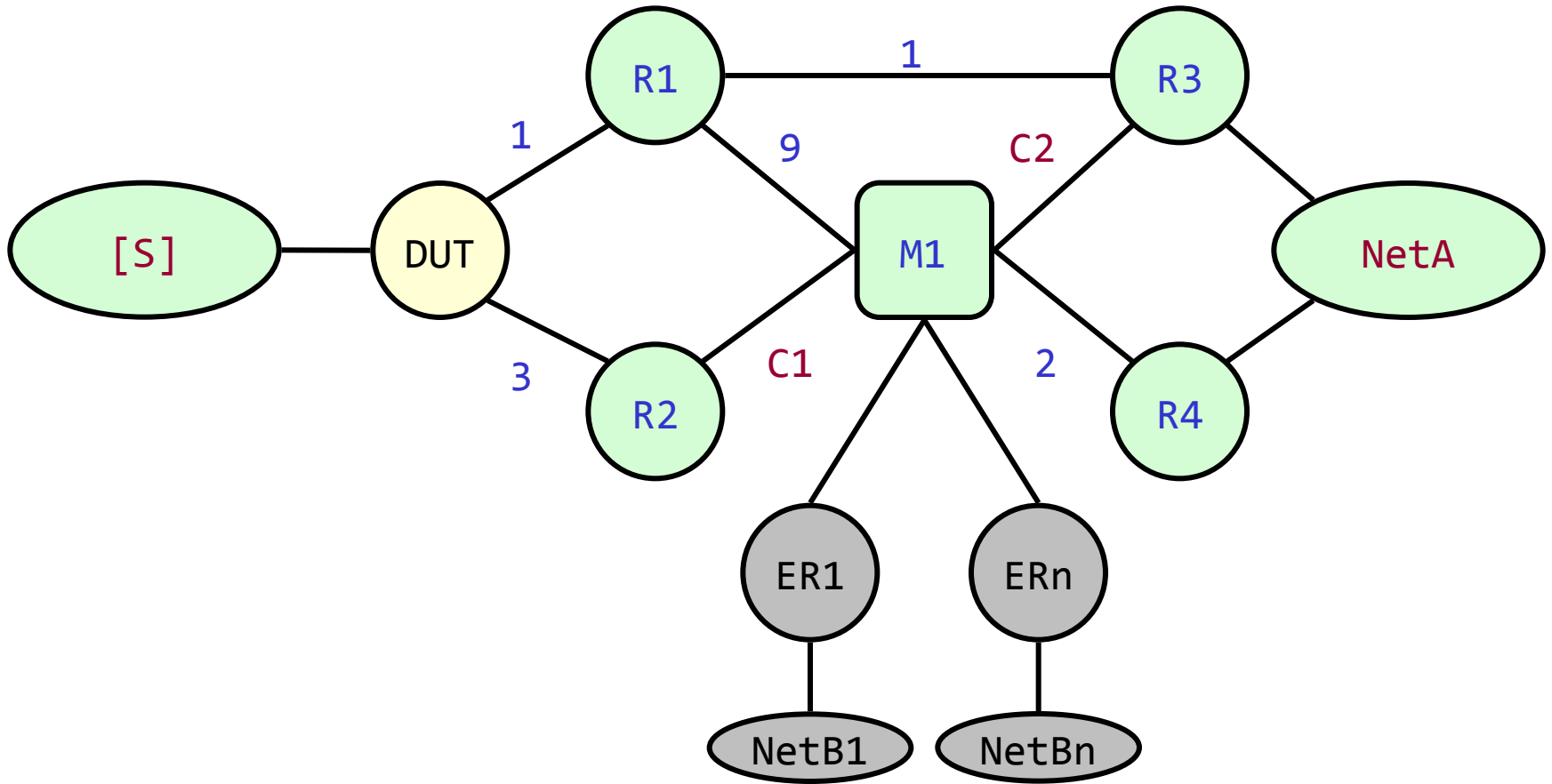
TODO list

- Agree on approach
- Do we need to change test topology?
- Do we need to change failure scenarios?
- Input welcome!
- Aim for WG-item readiness by next IETF
- Consider need for amending RFC4098