The **Updates** on the Benchmarking Methodology for Intra-domain and Inter-domain Source Address Validation

draft-ietf-bmwg-savnet-sav-benchmarking-01

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Overview of the Document

- What this draft defines
  - Benchmarking methodology for intra-domain and inter-domain SAV
  - Evaluate accuracy (FPR/FNR), control plane and data plane performance
  - Black-box, mechanism-agnostic approach
- Draft Progress
  - draft-chen-bmwg-savnet-sav-benchmarking-08, IETF 124 BMWG and SAVNET WG
  - draft-chen-bmwg-savnet-sav-benchmarking-00, adopted by BMWG on Feb. 05, 2026
  - **draft-ietf-bmwg-savnet-sav-benchmarking-01, IETF 125 BMWG**

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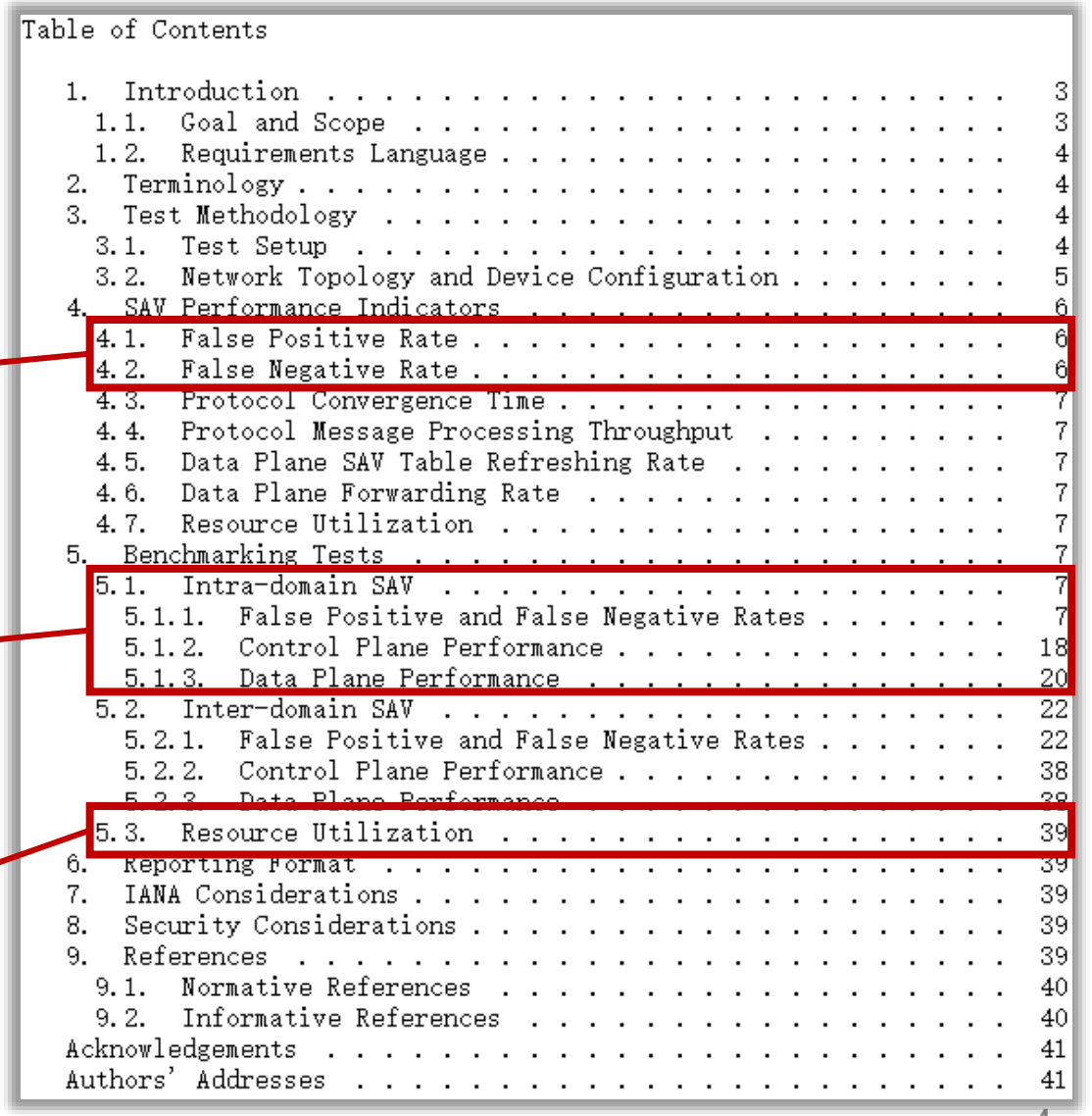
SAV Scope Clarification

- **Key point**: the distinction between intra-domain SAV and inter-domain SAV is based on whether the interface on which the SAV mechanism operates is connected to a BGP neighbor
- Intra-domain SAV
  - **Non-BGP interfaces**, including non-BGP customer, non-BGP provider, and hosts
- Inter-domain SAV
  - **AS-to-AS interfaces** that carry external BGP (eBGP) sessions
- Important for defining and understanding the benchmarking scenarios

Summary of Comments

- Comment on definitions of SAV performance indicators (Nan Geng, Xueyan Song)
  - **False Positive Rate** and **False Negative Rate**
- Comment on test cases of intra-domain SAV (Xueyan Song)
  - IPv6 should be used
- Suggestion on testing resource utilization (Shengnan Yue)
  - Peak usage differs over time



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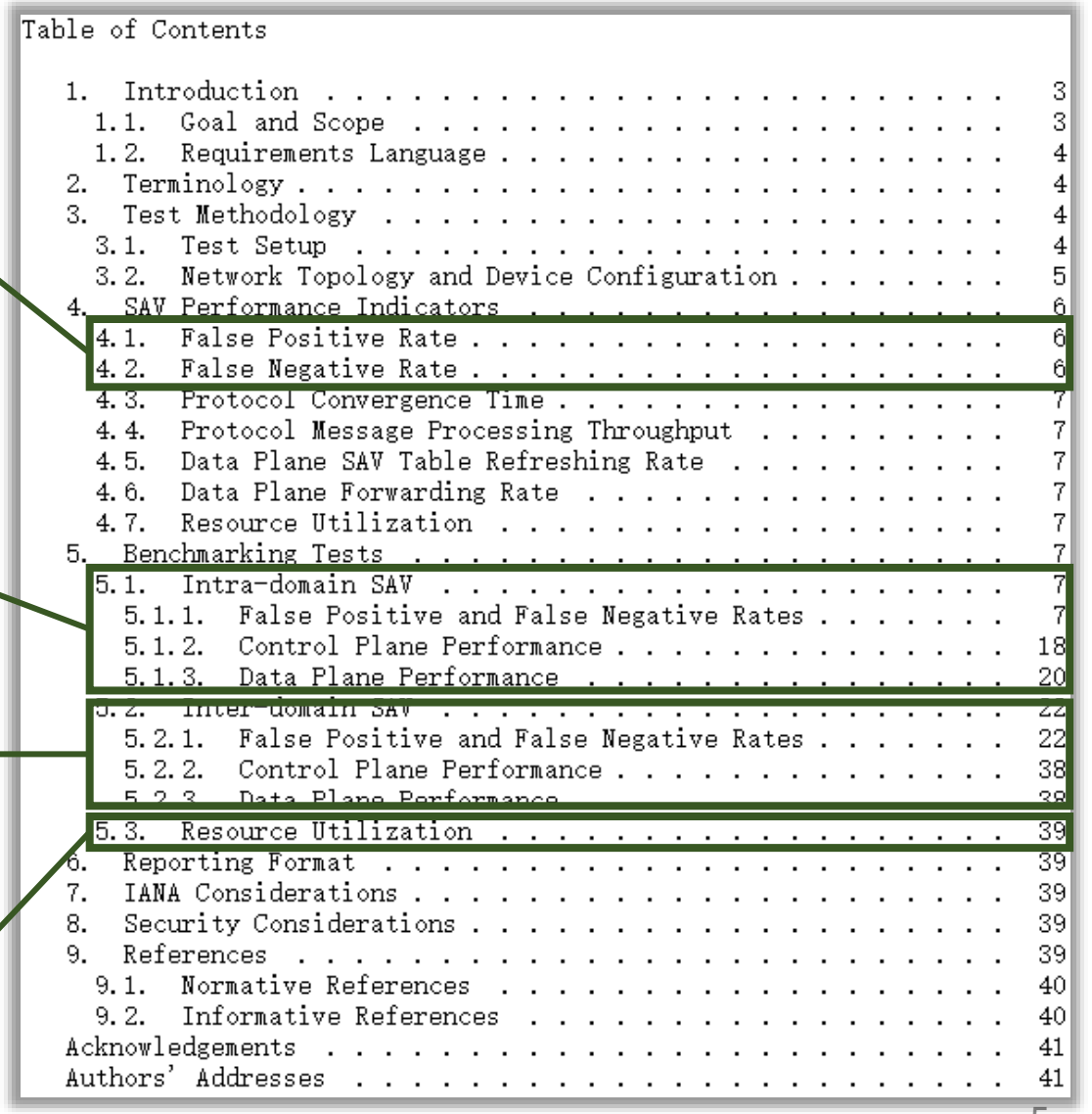
Summary of Main Updates

- Refining the definitions of **False Positive Rate** and **False Negative Rate**
- Making all the test cases for intra-domain SAV benchmarking use IPv6
  - Refining the text as well
- Refining the DSR test case for inter-domain SAV benchmarking
- Recommending continuous CPU and memory utilization monitoring



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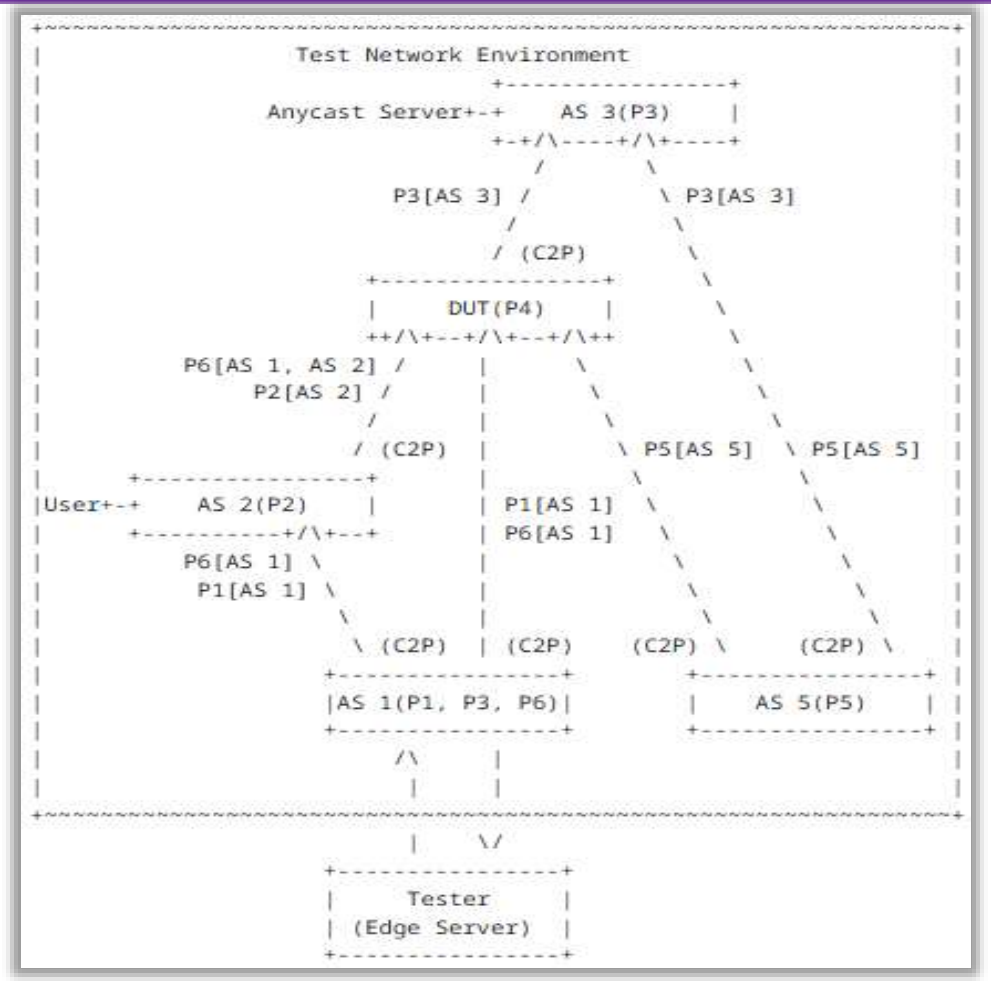
Definitions of FPR and FNR

- False positive rate (FPR)
  - The proportion of **legitimate packets that are incorrectly classified as spoofed by the DUT to the total number of legitimate packets sent to the DUT**
- False negative rate (FPR)
  - The proportion of **spoofed packets that are incorrectly classified as legitimate (i.e., not blocked) by the DUT to the total number of spoofed packets sent to the DUT**
- Note that other computation methods (e.g., based on byte counts) MAY be used for supplementary analysis, but are outside the scope of the normative definitions in this document

DSR Test Case for Inter-domain SAV



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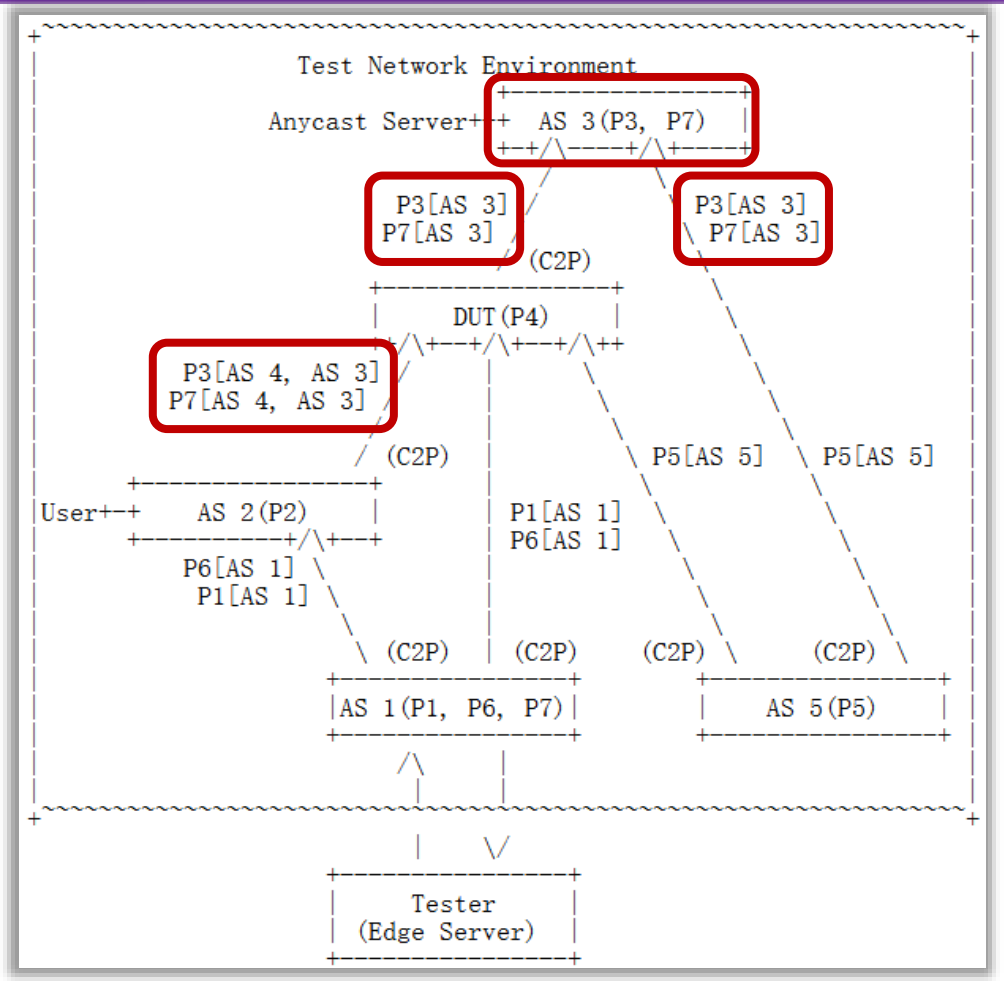

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Refer to Section 4.1.2 in the inter-domain SAV PS draft (https://datatracker.ietf.org/doc/draft-ietf-savnet-inter-domain-problem-statement/)

Acknowledgements

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- Apologies to any others whose names we may have missed mentioning.

Next Step

- Improve clarity and completeness of test procedures
- Continue discussion in BMWG and SAVNET
- Refine the document based on WG feedback

Thanks!