

Benchmarking Methodology WG (BMWG) IETF 118 – Prague

- Monday November 6, 2023
- 09:30 – 11:30 Local Time (Prague, UTC-1)
Alternate start times: 0830 UTC, 01:30 PST
- Chairs:
 - Sarah Banks (sbanks(at)encrypted.net)
 - Giuseppe Fioccola (giuseppe.fioccola(at)huawei.com)

If you are not subscribed to the BMWG mailing list and would like to be, please visit <https://www.ietf.org/mailman/listinfo/bmwg/>

Note Well

We work as individuals, and try to be nice to each other

(as of March 2018)

This is a reminder of IETF policies in effect on various topics such as patents or code of conduct. It is only meant to point you in the right direction. Exceptions may apply. The IETF's patent policy and the definition of an IETF "contribution" and "participation" are set forth in BCP 79; please read it carefully.

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Definitive information is in the documents listed below and other IETF BCPs. For advice, please talk to WG chairs or ADs:

- BCP 9 (Internet Standards Process)
- BCP 25 (Working Group processes)
- BCP 25 (Anti-Harassment Procedures)
- BCP 54 (Code of Conduct)
- BCP 78 (Copyright)
- BCP 79 (Patents, Participation)
- <https://www.ietf.org/privacy-policy/> (Privacy Policy)

Welcome Giuseppe Fioccola!

Getting to know Giuseppe...

First IETF meeting: 2014

First BMWG meeting: 2015

Currently resides in: Italy

Interesting tidbits about Giuseppe:

- More than 10 years of experience in network technologies and OAM
- Graduated in Naples, and lived in Turin, Munich, and now Milan
- Practice running and swimming, in addition to the Internet



BMWG Agenda

(any bashing needed?)

- Note taker(s), IPR
- (1) WG Status (Chairs)
 - Welcome Giuseppe!
 - Stateful FW draft – WGLC is coming
 - Request to revive the EVPN draft has been declined by the WG (lack of support)
 - The Segment Routing drafts will remain as separate drafts (feedback from authors)
- WG Drafts:
 - (2) Multiple Loss Ratio Search and YANG Model (new draft) (Vratko presenting?)
 - (3) Benchmarking Methodology for Stateful NATxy Gateways using RFC 4814 Pseudorandom Port Numbers (Gabor presenting)
- Proposals
 - (4) Recommendations for using Multiple IP Addresses in Benchmarking Tests (Gabor presenting)
 - (5) Considerations for Benchmarking Network Performance in Containerized Infrastructures (Ming-Ngoc presenting)
 - (6) Benchmarking methodology for MPLS Segment Routing (Paolo presenting)
 - (7) Benchmarking methodology for IPv6 Segment Routing (Eduard presenting)
 - (8) Benchmarking Methodology for Reliable Transport Protocols in Integrated Space and Terrestrial Networks (Zeqi Li presenting)
- Test Results: (9) VPP/DPDK app via network dataplane benchmarking (Vratko/Maciek presenting)

BMWG Status

- Reviewers needed!
 - Work is adopted, completed, and published as an RFC when the participants of the Working Group read other documents and share their feedback on the list and at meetings.
 - It's a two-way street – your proposals become WG adopted when others review, express interest, and share feedback
- We have several well written, interesting proposals that need reviews:
 - Benchmarking methodology for MPLS Segment Routing
 - Benchmarking methodology for IPv6 Segment Routing
 - Considerations for benchmarking network performance in containerized infrastructures
- Proposals keep coming...
- Test results are always welcome

BMWG Activity

- New RFCs:
 - RFC 9411 (March)
- Updated milestone (Stateful NATxy was added)
- Charter Update
 - Stable
- New chair – welcome Giuseppe Fioccolo
- Supplementary BMWG Page
 - <http://bmwg.encrypted.net/>

Milestones (Revised)

DONE	Methodology for Next-gen Firewall Benchmarking to IESG Review
DONE	Update to RFC2544 Back-to-back Frame Benchmarking to IESG Review
DONE	Methodology for EVPN Benchmarking to IESG Review
Aug 2023	Draft on Selecting and Applying Model(s) for Benchmarking to IESG Review
Dec 2022	Draft on General VNF Benchmarking Automation to IESG Review
Dec 2023	Considerations for Benchmarking Network Virtualization Platforms to IESG Review
Apr 2024	Benchmarking for Stateful NATxy Gateways using RFC 4814 Pseudorandom Port Numbers to IESG Review

Clean up coming after IETF 118 and review with Warren)

BACKUP

Standard “Paragraph” (intro/security)

Benchmarking activities as described in this memo are limited to technology characterization using controlled stimuli in a laboratory environment, with dedicated address space and the constraints specified in the sections above.

The benchmarking network topology will be an independent test setup and **MUST NOT** be connected to devices that may forward the test traffic into a production network, or misroute traffic to the test management network.

Further, benchmarking is performed on a “black-box” basis, relying solely on measurements observable external to the DUT/SUT.

Special capabilities **SHOULD NOT** exist in the DUT/SUT specifically for benchmarking purposes. Any implications for network security arising from the DUT/SUT **SHOULD** be identical in the lab and in production networks.

Work Proposal Summary Matrix

Work Area > Criteria	EVPN & PBB EVPN	VNF (was VBaaS)	Virtualized Platforms	SFC	Back-to-back Frame	Network Service Layer Abs Model	Next-Gen Firewalls
Proposal	Y	Y	Y	Y	Y	Y	Y
In scope of charter?	Y	Y	Y	Y	Y	Y	Y
Draft(s)	Y	Y	Y	Y	Y	Y	Y
Sig. support at meetings	Y		IETF98, many comments	Revised draft	Discuss @ IETF103		Y
Sig. support on list	Y				Comments & Testing		Y
Dependencies/Notes	Reviewers & charter			Expired		Expired	