

# BMWG WG

IETF 89  
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SIP Benchmarking (-09)

# Status of the work

- Jan 16 2013: Terminology and Methodology documents sent to IESG.
- Jan 24 2013: IESG review (Robert Sparks) suggested documents need more work.
- Feb 18 2014: -09 versions released for Terminology and Methodology addressing IESG review.

# Diffs

< [draft-ietf-bmwg-sip-bench-meth-08.txt](#)

[draft-ietf-bmwg-sip-bench-meth-09.txt](#) >

Benchmarking Methodology Working Group  
C. Davids  
Illinois Institute of Technology  
Internet-Draft  
V. Gurbani  
Intended status: Informational  
Bell Laboratories, Alcatel-Lucent  
Expires: July 12, 2013  
S. Poretsky

Allot Communications  
January 8, 2013

Methodology for Benchmarking SIP Networking Devices  
[draft-ietf-bmwg-sip-bench-meth-08](#)

## Abstract

This document describes the methodology for benchmarking Session Initiation Protocol (SIP) performance as described in SIP benchmarking terminology document. The methodology and terminology are to be used for benchmarking signaling plane performance with varying signaling and media load. Both scale and establishment rate are measured by signaling plane performance. The SIP Devices to be benchmarked may be a single device under test (DUT) or a system under test (SUT). Benchmarks can be obtained and compared for different types of devices such as SIP Proxy Server, SBC, and server paired with a media relay or Firewall/NAT device.

## Status of this Memo

This Internet-Draft is submitted in full conformance with the provisions of BCP 78 and BCP 79.

Internet-Drafts are working documents of the Internet Engineering Task Force (IETF). Note that other groups may also distribute working documents as Internet-Drafts. The list of current Internet-Drafts is at <http://datatracker.ietf.org/drafts/current/>.

Benchmarking Methodology Working Group  
C. Davids  
Illinois Institute of Technology  
Internet-Draft  
V. Gurbani  
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Alcatel-Lucent  
S. Poretsky

Allot Communications  
February 14, 2014

Methodology for Benchmarking Session Initiation Protocol (SIP) Devices:  
Basic session setup and registration  
[draft-ietf-bmwg-sip-bench-meth-09](#)

## Abstract

This document provides a methodology for benchmarking the Session Initiation Protocol (SIP) performance of devices. Terminology related to benchmarking SIP devices is described in the companion terminology document. Using these two documents, benchmarks can be obtained and compared for different types of devices such as SIP Proxy Servers, Registrars and Session Border Controllers. The term "performance" in this context means the capacity of the device-under-test (DUT) to process SIP messages. Media streams are used only to study how they impact the signaling behavior. The intent of the two documents is to provide a normalized set of tests that will enable an objective comparison of the capacity of SIP devices. Test setup parameters and a methodology is necessary because SIP allows a wide range of configuration and operational conditions that can influence performance benchmark measurements. A standard terminology and methodology will ensure that benchmarks have consistent definition and were obtained following the same procedures.

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# Diffs

- Edits for clarity and readability.
- Content changes driven from implementing these documents over a number of years.
- Major content changes:
  - Goal remains to benchmark SIP devices other than UAs.
  - Two benchmarks: maximum arrival rate of INVITEs and REGISTERs that the DUT can sustain with no errors over a long period of time.
  - Deleted separate consideration of a SUT (it reduces the testing of the system which itself could be considered a DUT).
  - Reduced the numbers of distinct architectures into two: (1) DUT handles media; (2) DUT does not handle media.

# Diffs

- Major content changes:
  - Tests related to loop detection and forking removed since these are mainly conformance tests and not performance tests (yes, they will slow performance).
  - Simplified benchmarks to two from original seven. The two are: Session Establishment Rate and Registration Rate.
  - Removed benchmarks related to IM rate (too many variabilities).

# Diffs

- Major content changes:
  - IM (MESSAGE) was an example of a non-INVITE benchmarking transaction; using REGISTER instead.
  - Expanded test reporting template to include TLS ciphersuites, IPSec profiles and codec types.
  - Flooding and overload declared out of scope.

# Next steps

- Chair guidance needed on next steps for the drafts.