Multi-Service Business Routers (MSBR)

Access, Data, Voice & Security

Session Border Controller (SBC)

# Configuration Guide

## Performance Testing of Data Traffic on AudioCodes Mediant™ MSBR

June 2014

Document # LTRT-39191

HD VoIP

Sounds Better

AudioCodes

# Table of Contents

## Reader's Notes

## Notice

This document describes how to test the performance of data traffic on AudioCodes Mediant MSBR series.

Information contained in this document is believed to be accurate and reliable at the time of printing. However, due to ongoing product improvements and revisions, AudioCodes cannot guarantee accuracy of printed material after the Date Published nor can it accept responsibility for errors or omissions. Before consulting this document, check the corresponding Release Notes regarding feature preconditions and/or specific support in this release. In cases where there are discrepancies between this document and the Release Notes, the information in the Release Notes supersedes that in this document. Updates to this document and other documents as well as software files can be downloaded by registered customers at http://www.audiocodes.com/downloads.



Date Published: June-11-2014

# Trademarks

AudioCodes, AC, AudioCoded, Ardito, CTI2, CTI², CTI Squared, HD VoIP, HD VoIP Sounds Better, InTouch, IPmedia, Mediant, MediaPack, NetCoder, Netrake, Nuera, Open Solutions Network, OSN, Stretto, TrunkPack, VMAS, VoicePacketizer, VoIPerfect, VoIPerfectHD, What's Inside Matters, Your Gateway To VoIP and 3GX are trademarks or registered trademarks of AudioCodes Limited. All other products or trademarks are property of their respective owners. Product specifications are subject to change without notice.

# WEEE EU Directive

Pursuant to the WEEE EU Directive, electronic and electrical waste must not be disposed of with unsorted waste. Please contact your local recycling authority for disposal of this product.

# Customer Support

Customer technical support and services are provided by AudioCodes or by an authorized AudioCodes Service Partner. For more information on how to buy technical support for AudioCodes products and for contact information, please visit our Web site at www.audiocodes.com/support.

# Abbreviations and Terminology

Each abbreviation, unless widely used, is spelled out in full when first used.

## Documentation Feedback

AudioCodes continually strives to produce high quality documentation. If you have any comments (suggestions or errors) regarding this document, please fill out the Documentation Feedback form on our Web site at http://www.audiocodes.com/downloads.

# 1 Introduction

This document provides step-by-step procedures for testing the performance of data traffic handling by AudioCodes Mediant MSBR device. This testing is done on-premises at the customer's site.

This document is typically intended for Field Application Engineers (FAE), Professional Services Engineers, R&D, and Quality Assurance (QA) teams.

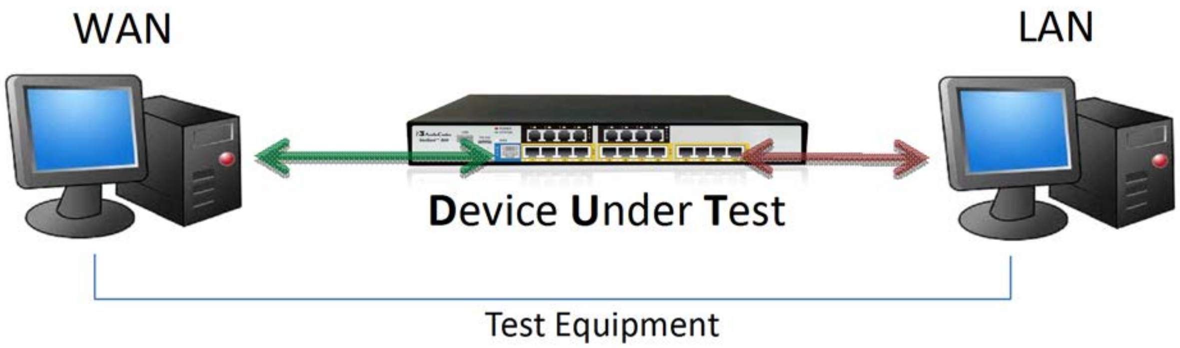
The procedures described in this document are applicable to Software Version 6.6 and later.

## Reader's Notes

# 2 Running the Performance Test

The Performance test is run from the device's WAN port to the LAN port, as shown below.

**Figure 2-1: Performance Testing – LAN to WAN**




Before running the "full throttle" traffic test, make sure that the platform is ready to be tested to full capability. Therefore, the test procedure below first tests low generated traffic speed at a rate of one packet per second.

➢ **To run the performance test:**

1. Start your third-party packet generator (e.g., Iperf) and configure it to generate packets at a rate of one packet per second.
2. Verify that the packets are marked as "cavim-fastpath" on both sides of the traffic. This is done by running the `firewall states` command. Note that some traffic paths do not support fast-path and therefore, the traffic rate could be slower. If this is the case, you can skip this step.

```
MSBR# show data ip firewall states brief
Active Connections 1, quota 20000.
New connections will be created above the quota if there are
more than 1228800 bytes of free memory. Current free memory is
73527296 bytes.
Fastpath packets: 10309, Fullpath packets: 23585
Totals: TCP 0 UDP 1 ICMP 0
NAT total: 0, of them TCP 0 UDP 0 ICMP 0
1:        UDP  172.16.21.10:6000     <-->172.16.21.10:6000
[10.160.32.233:6000] ttl
119 bytes 20.1/20.1 pkts 397/397 sticky 0/1 kbps 10/10 pps
0.5/0.5 eth1 Route Incoming
UNSECURED FW-FP-ENA FW-FP-CAP HW-FP-ENA HW-FP-CAP
        FP IN:  (a800000005efd100) eth1->eth0.21 <cavim-
fastpath> id-800000000fc9ba00,
pkts-396, used-1 out_dev-eth0
        FP OUT: (a800000006151200) eth0.21->eth1 <cavim-
fastpath> id-a800000004f09080,
pkts-396, used-1 out_dev-eth1
```

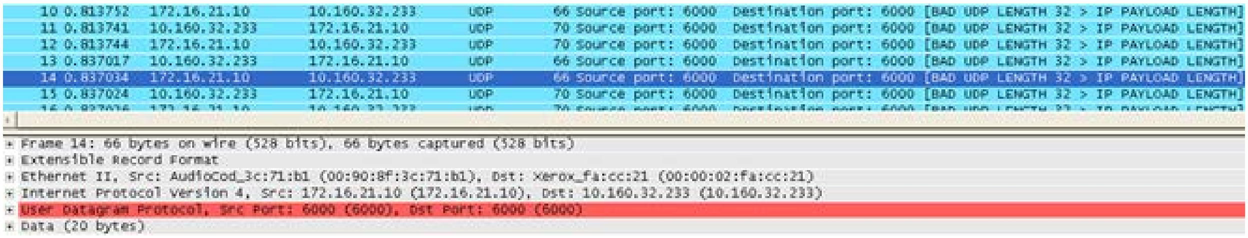
3. Debug capture provides the ability to record traffic running on the MSBR, and analyze packets along their paths. To verify that packets are running in the system exactly as the system is configured, perform **physical** debug captures as shown below:

```
MSBR# debug capture data physical eth-lan
MSBR# debug capture data physical eth-wan
MSBR# debug capture data physical start
MSBR# debug capture data physical stop <TFTP server IP
address>
```

   The physical interface type supports other options (for example, eth-t1 or fiber), depending on the physical interfaces provided on the MSBR's chassis.

4. Analyze the debug capture using Wireshark to provide a reasonable explanation about the data traffic. The physical capture allows the packets to follow from one interface to the other.

**Figure 2-2: Wireshark Physical Capture**




5. Now that your MSBR is setup correctly, set your third-party packet generator to generate packets at maximum capacity (full throttle), and run the Performance test.

# 3 Reporting a Traffic Performance Problem

If the Performance test shows a problem and the traffic rates are not as expected according to configuration and MSBR's physical capabilities, run the following commands and send their output results to AudioCodes FAE / Data Integration Team for analysis:

- **`show run`** for voip, system and data
- **`show system version`**
- **`show data ip interface brief`**
- **`show data ip route`**
- If VPN Routing and Forwarding (VRF) has been set up, add the relevant route print of the VRF as well as the **`no VRF route`** table.
- **`show data ip firewall states brief`**
- **`debug capture`** of a recording of one packet per second rate

In addition to the above, take a photograph of the **cable setup on your MSBR** and send it as well.

# Configuration Note

www.audiocodes.com