

# AudioCodes Quick Reference Guide

## How to Use Message Manipulations for Basic Fixes

### Background

In SIP world, interworking of different SIP devices is always challenging. Different SIP devices use different SIP structure and headers. Using AudioCodes SBCs gives us the ability to manipulate SIP messages in a way the different devices can work together.

### How does message manipulation work?

With message manipulation you can ADD, REMOVE, MODIFY or NORMALIZE a SIP header or SIP message body. You can also set a condition for the message manipulation to be applied to the SIP message.

### How to configure SIP message manipulation

Setup menu > Signaling & Media tab > Message Manipulation folder > Message Manipulations

The Message Manipulation table lets you configure up to 200 Message Manipulation rules. Each Message Manipulation rule is configured with a Manipulation Set ID. You can create groups (sets) of Message Manipulation rules by assigning each of the relevant Message Manipulation rules to the same Manipulation Set ID. Then you can assign each manipulation set ID to an IP GROUP as incoming manipulation set (will apply to messages received from this IP group ) or outbound manipulation set (which will be applied to the messages sent to this IP group ).

### Message manipulation examples:

Here are few examples on how to create a message manipulation to solve basic Interworking issues:

#### 1. Change the IP address in the SDP from '0.0.0.0' (hold) to the E-SBC's IP address

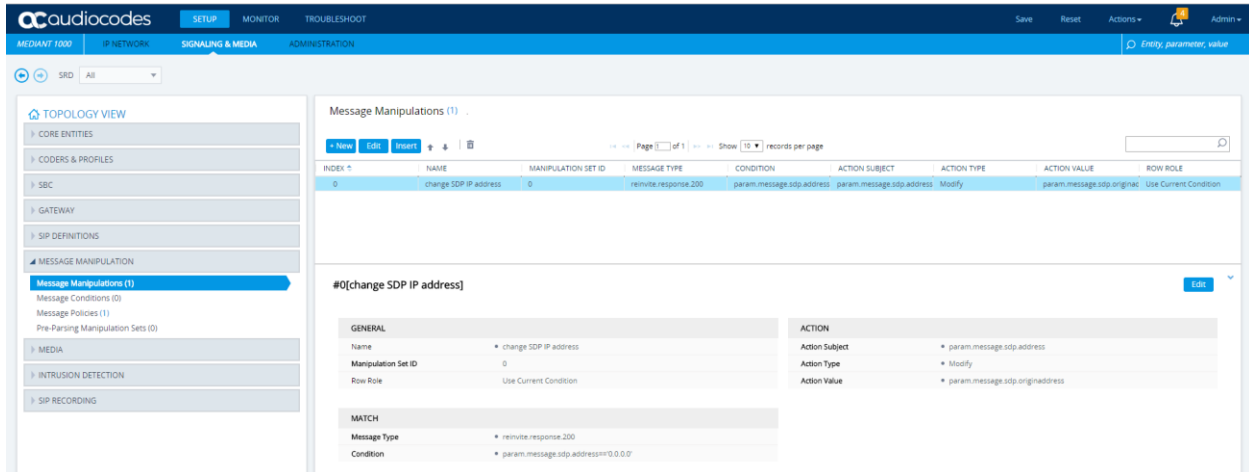
When Lync Client places a call on HOLD, it sends **a=inactive**, the ITSP usually answers back to Re-INVITE with '0.0.0.0' in the SDP

If the Lync client receives '0.0.0.0' and the Media ByPass is enabled, it is not switched to HOLD  
Manipulate a SIP 200 OK response for re-INVITE to change the IP address in the SDP from '0.0.0.0' (hold) to the E-SBC's IP address

- Manipulation Set ID = 0
- Message Type = reinvite.response.200

- Condition = param.message.sdp.address=='0.0.0.0'
- Action Subject = param.message.sdp.address
- Action Type = Modify
- Action Value = param.message.sdp.originaaddress

In your Lync IP group, set the outbound manipulation to 0



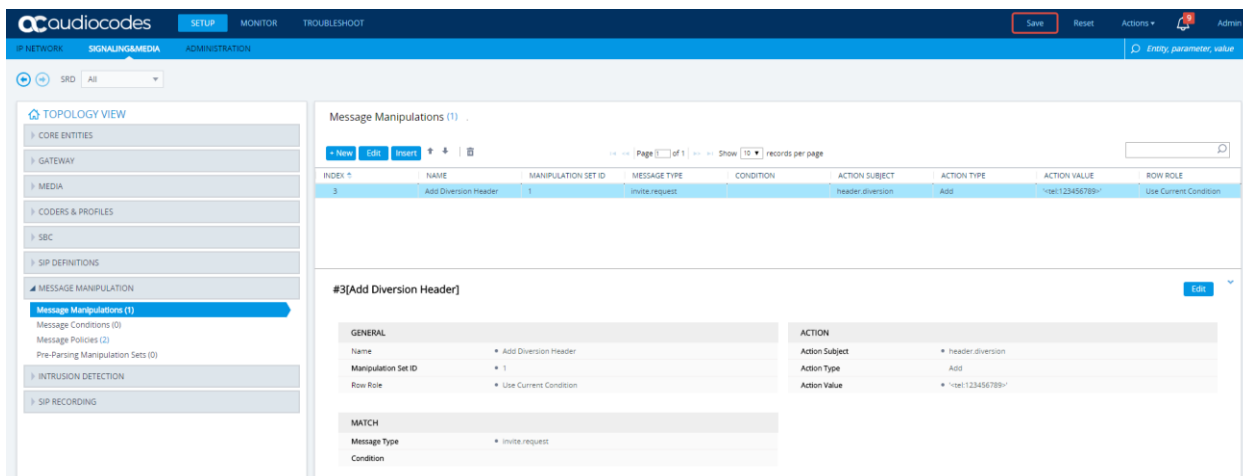
## 2. AN ITSP requires to receive a fix number in Diversion header to allow outgoing calls

If an ITSP requires to receive a fix Diversion header like 123456789

We need to manipulate the outgoing SIP message to IPSP and add the diversion header.

- Manipulation Set ID = 1
- Message Type = invite.request
- Condition =
- Action Subject = header.diversion
- Action Type = ADD
- Action Value = '<tel:123456789>'

In your ITSP IP Group, set the outbound manipulation to 1



The screenshot displays the AudioCodes management console. The left sidebar shows a navigation menu with categories like CORE ENTITIES, GATEWAY, MEDIA, CODERS & PROFILES, SBC, SIP DEFINITIONS, MESSAGE MANIPULATION, and SIP RECORDING. The 'MESSAGE MANIPULATION' section is expanded to show 'Message Manipulations (1)'. The main content area shows a table with one entry:

INDEX	NAME	MANIPULATION SET ID	MESSAGE TYPE	CONDITION	ACTION SUBJECT	ACTION TYPE	ACTION VALUE	ROW ROLE
3	Add Diversion Header	1	invite.request		header.diversion	Add	*tel:123456789*	Use Current Condition

Below the table, the configuration details for the selected rule are shown in a form:

**#3[Add Diversion Header]** [Edit]

**GENERAL**

- Name: Add Diversion Header
- Manipulation Set ID: 1
- Row Role: Use Current Condition

**MATCH**

- Message Type: invite.request
- Condition:

**ACTION**

- Action Subject: header.diversion
- Action Type: Add
- Action Value: \*tel:123456789\*

## What resources do I use to configure message manipulation?

AudioCodes provides a document on message manipulation for our devices [LTRT-29040 SIP message manipulation reference guide ver 7.2](#).

## For any further questions regarding this topic or other technical topics:

- Contact your AudioCodes Sales Engineer
- Visit our AudioCodes Services and support page at <https://www.audiocodes.com/services-support>
- Access our technical documentation library at <https://www.audiocodes.com/library/technical-documents>
- Access to AudioCodes Management Utilities is available at [https://services.audiocodes.com/app/answers/detail/a\\_id/20](https://services.audiocodes.com/app/answers/detail/a_id/20)
- Contact Technical Support to submit a support ticket at <https://services.audiocodes.com>