

# One-Way Audio on Inbound Calls from Mobile Carriers:

*Symmetric NAT Traversal Misconfiguration on Zultys MX / Momentum SIP Trunk*

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## Abstract

*User could hear external callers but mobile callers could not hear the user. Internal and landline calls functioned correctly in both directions. Root cause: Symmetric NAT Traversal set to 'Auto' on the Momentum SIP trunk. Resolution: setting changed to 'On'. Issue resolved immediately.*

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## 1. Root Cause

Mobile and wireless carriers operate separate servers for SIP signaling and RTP media. The SIP INVITE arrives from one IP address, but the audio stream (RTP) is delivered from a different IP — a dedicated media gateway managed by the carrier.

The Momentum SIP trunk on the Zultys MX had **Symmetric NAT Traversal set to 'Auto'**. In this mode, the MX attempts to detect on a per-call basis whether symmetric NAT handling is required. For mobile carrier calls, this detection fails intermittently: the MX does not recognize the carrier's media IP as a valid RTP source and silently discards the inbound audio stream. The result is that the user speaks, the audio leaves the phone, but the mobile caller receives only silence.

Landline and internal calls are unaffected because their RTP consistently arrives from the same IP as their SIP signaling, requiring no symmetric NAT handling.

Setting	Behavior
Auto ✗	MX evaluates NAT need per call. Detection fails with mobile carrier media IPs — RTP discarded intermittently.
On ✓	MX accepts RTP from any source IP. Compatible with mobile carrier media servers — audio flows correctly.

## 2. Solution

In Zultys MX Administrator:

1. Navigate to *Provision* → *SIP Servers and ITSPs* → *ITSPs tab*.
2. Select the **Momentum** trunk.
3. Locate **Symmetric NAT Travel** on the right panel.
4. Change from **Auto** → **On**.
5. Click **Apply**. No reboot required.

*Note: Only change this setting on the affected trunk. Do not modify other trunks (e.g., N2P) unless the same symptom is confirmed on them.*

### **3. Verification**

After applying the change, confirm with an inbound call from a mobile caller that audio flows correctly in both directions. Fix was validated — issue resolved immediately after the setting was changed.

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