



SIP 5 PCM Traces

Mediatrix Analog series (1100/1200 Series, 2102, 4100, LP Series, C7 Series)

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PCM Traces

The PCM traces are two different RTP streams made specifically to record all analog signals that are either sent or received on the analog side of the Mediatix.

These RTP streams are sent to a configurable IP address, normally an IP address on your network where it can be recorded with a packet sniffer (such as Wireshark). Moreover, they are independent from the regular RTP streams of the VoIP call. On the analog devices, the streams are sent instantly at device startup, with an average ptime of 5 ms. The resulting streams, depending on the model, are around 15 kB/s.

Only the configured port, port #1 and/or #2 send the PCM traces for a maximum of four simultaneous RTP streams.

All streams are sent instantly at startup with an average ptime of 15 ms. This means that until the PCM traces are disabled, even an idle unit will continuously send up to $66.6 \text{ packets/s} \times 4 \text{ streams} = 267 \text{ packets/s}$ using approximately 174 bytes each, for a total of 46 Kbytes of upstream bandwidth.

On digital devices, the streams will be sent once a call is in process of being established (ISDN SETUP, SIP INVITE). This means no data will be sent if the gateway is idle with no calls in progress.

PCM Traces is efficient at identifying problems with:

- Echo in the network
- DTMF signals
- Caller ID signals
- Fax signals (or false Fax detection)
- Message Waiting Indicator signals
- Any other analog signal
- Any voice quality issue

SIP 5 PCM Traces Requirements

1100/1200 Series, 2102

- Test call(s) must be done on port #1 and/or #2.
- Must use SIP v.50r14.83 and later or MGCP v5.0r5.43 and later.
- Must use UMN v3.2r19.43 or later to have access to the PCM trace MIB variables.
- RTP streams:

Port#	Description
5001	Incoming analog signal on port #1
6001	Outgoing analog signal on port #1
5002	Incoming analog signal on port #2
6002	Outgoing analog signal on port #2

4100/LP Series/C7

- Must use SIP v5.0r16.124 and later or MGCP v5.0r7.51 and later.
- Must use UMN v3.2r24.51 or later to have access to the PCM trace MIB variables.

The test calls must be done on port #1.

RTP Stream:

Port #	Description
5001	Incoming analog signal on port #1
6001	Outgoing analog signal on port #1

Enabling the PCM Traces - SIP 5.0

The PCM traces destination must be set so it can be recorded in a Wireshark capture on your network, normally sent to the PC doing the capture

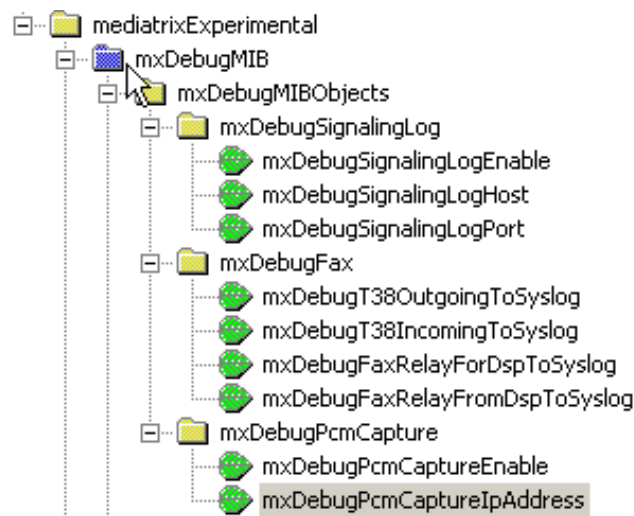
- 1) Enable the PCM traces by setting the `mxDebugPcmCaptureEnable` MIB variable to enable.
- 2) Set the destination IP address for the PCM traces in the `mxDebugPcmCaptureIpAddress` MIB variable.

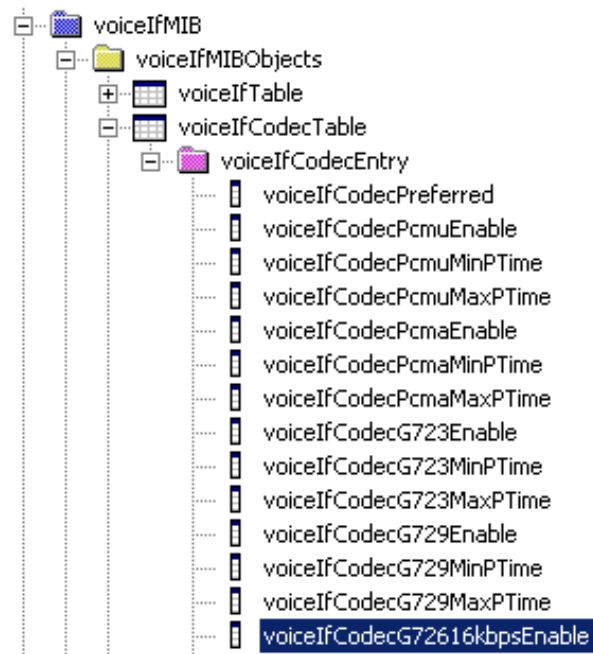
This IP address does not have to be listening on ports 5001/2 – 6001/2, as it is easy to filter out ICMP “port unreachable” messages afterwards.

Enabling PCM traces on a 1204

If G.723 is available, you MUST disable the G.723 and enable the G.726 codec to load the PCM code into the 1204. This can be done by setting the `voiceIfCodecG723Enable` MIB variable to disable and the `voiceIfCodecG72616kbpsEnable` MIB variable to enable in the `voiceIfMIB`.

- 3) Reboot the unit.





Available Documentation

For more details, refer to the [Mediatrix Documentation](#).

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