AudioCodes Quick Reference Guide

Understanding Voice Transport Coders

Background:

A coder converts an audio signal (your voice) into compressed digital form for transmission (VoIP) and then back into an uncompressed audio signal for replay. It's the essence of VoIP. Coders vary in the sound quality, the bandwidth required, the computational requirements, etc., Each service, program, phone, gateway, etc., typically supports several different coders, and when talking to each other, negotiate which coder they will use.

What are common VoIP coders?

G.711 – Delivers precise speech transmission and has very low processor requirements. It needs at least 128 kbps for two-way. It is one of the oldest coders around and works best in high bandwidth, which makes it a bit obsolete for the Internet but still good for LANs. There are two versions of G.711: u-law is primarily used in North America and Japan, and A-law, which is used in most countries outside North America.

G.722 – Adapts to varying compressions and bandwidth is conserved with network congestion. It captures ranges of frequency twice as large as G.711, resulting in better quality and clarity.

G.729 – Excellent bandwidth utilization and error tolerance. This one is a licensed coder.

What coders are supported:

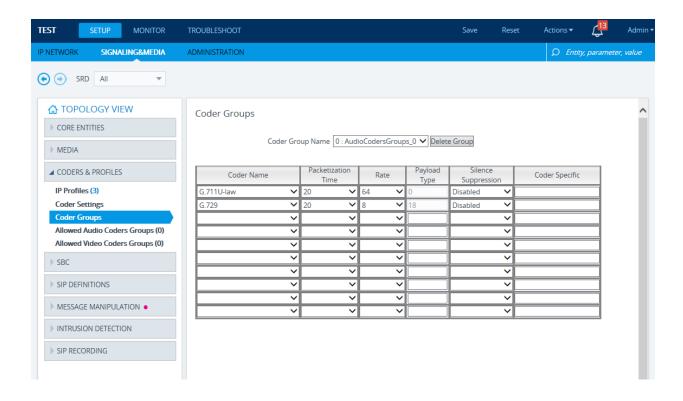| |
| --- |
| **G.711 A-law** |
| **G.711U-law** |
| **G.711A-law_VBD** |
| **G.711U-law_VBD** |
| **G711u-law-vbd** |
| **G.722** |
| **G.723.1** |
| **G.726** |
| **G.729** |
| **GSM FR** |
| **GSM EFR** |
| **MS GSM** |
| **AMR** |
| **QCELP** |
| **EVRC** |
| **iLBC** |
| **Transparent** |
| **T.38** |
| **T.38 Over RTP** |

Note: Some coders are license-dependent and are available only if purchased from AudioCodes and included in the License Key installed on your device.

How do I configure coders?

The Coder settings are located under Setup → Signaling & Media → Coders & Profiles → Coder Groups

The Coder Groups can then be applied to the IP Profile under Setup → Signaling & Media → Coders & Profiles → IP Profiles.

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
- Contact Technical Support to submit a support ticket at https://services.audiocodes.com