

Fusion Voice Engine™

The Fusion Voice Engine is a comprehensive solution consisting of an extensive set of algorithms and codecs designed for Digital Voice applications. The Fusion Voice Engine is designed for a wide range of applications, like PC VoIP, Smart Phones, RoIP assets, and Embedded Voice applications. It allows application developers, service providers and hardware manufacturers the ability to easily build VoIP or Radio over IP (RoIP) technology into their solutions. The Fusion Voice Engine has a high level API to easily manage Analog Channels, Digital Channels and the Mixer. It is extensible, with a plug-in architecture, allowing the user to add in custom codecs and/or proprietary echo cancellation components. It is designed to support sampling rates of 8KHz (Narrow Band Audio), 16KHz (HD Audio), 32KHz (Ultra-HD Audio) and 48KHz (CD Audio).

Key Features and Algorithms

- Support for Virtually any OS/Hardware Configuration
- Fusion Embedded RTP/RTCP
- Gain Control
- Automatic Gain Control (AGC)
- DC Blocker
- High Pass Filter
- DTMF Generator
- DTMF Detector
- Call Progress Tones
- Custom Ring Tone Generator

- Voice Activity Detector (VAD)
- Comfort Noise Generator (CNG)
- Conference Bridge (Mixer)
- Audio Resampler (8K, 16K, 32K & 48K)
- RoIP Algorithms
- Packet Loss compensation

Optional Features and Algorithms

- Fusion Embedded SRTP (Secure RTP)
- Noise Reduction
- Acoustic Echo Canceller (AEC)
- Line Echo Canceller (LEC)
- Custom Tone Generator
- Frequency Equalizer

Default Codecs

- G.711U, G.711A
- DVI4, DVI4 HD, DVI4 Ultra-HD
- G.726-16, G.726-24, G.726-32, G.726-40
- G.722
- PCM
- iLBC
- Speex

Optional Codec

- G.729

Voice Engine Architecture Diagram

