

TeamSpirit® 3.1 Voice&Video Engine Mobile

Fixed Mobile Convergence (FMC) is a strong trend in the enterprise segment. Backed by increasing adoption of dual-mode smartphones enterprises are looking for ways to increase communication efficiency of their mobile workforce. With FMC in place mobile workers can make voice calls and can be reached using a single number wherever they are: at their desk, at any place in the office, at home or on the go. Reach IP applications available with FMC such as voice&video communication, messaging, presence and videoconferencing increase mobile workforce productivity and manageability while reducing communication costs for businesses. By offering FMC services, operators can leverage their brands, relationships, and infrastructure to increase revenue from business clients, and lower churn.

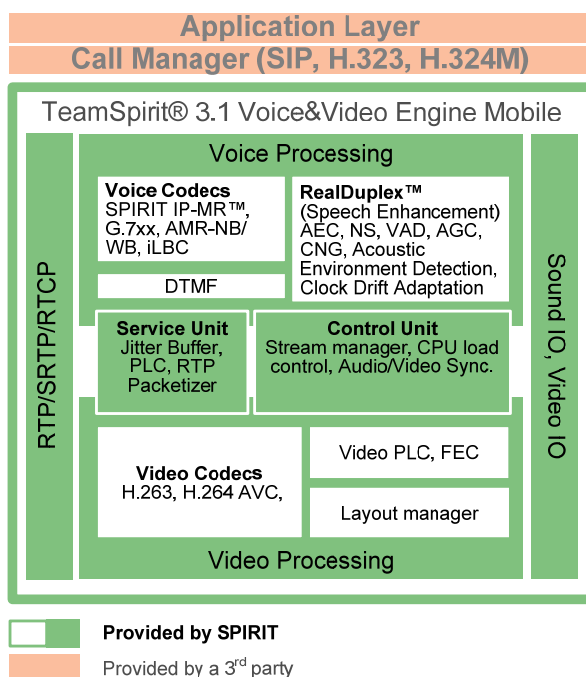
TeamSpirit® 3.1 Voice&Video Engine Mobile enables high quality, real-time voice and video communication on mobile devices over IP, WiFi, LTE/WiMAX and 3G/4G wireless networks.

Overview

TeamSpirit® Voice & Video Engine Mobile is an SDK that enables HD-quality voice and video communication on a broad range of mobile devices. It handles all network specific impairments to secure high quality voice and video over WiFi, LTE/WiMAX and 3G/4G networks. TeamSpirit® Engine can run even on a regular 200MHz ARM processor. At the same time it supports both software and hardware accelerators inside popular application processors to deliver 30 fps VGA video on a mobile device.

TeamSpirit® Voice & Video Engine Mobile includes:

- Highly optimized standard voice codecs, such as: G.711, G.723, G.729, iLBC, SILK, etc. and a patent-free wideband SPiRiT IP-MR™ codec, specifically optimized for voice transmission over IP networks.
- H.263, H.264 video codecs, video packet loss robustness and other video quality improvement algorithms
- Cutting-edge speech enhancement module with acoustic echo cancellation (AEC), noise suppression and other must-have features
- Special module for network impairments compensation, such as congestions, latency, varying delay (jitter), packet loss, etc., common for public WiFi networks



"Wi-Fi IC placement in mobile handsets grew by more than 50% in 2009 and Wi-Fi-enabled handsets will account for 40% of the total of handsets shipped in 2014."

ABI Research

Benefits

- HD voice and video quality
- Compliant with major telecom standards (ITU-T, TIA)
- Reliable performance in public wireless networks
- Resource-efficient solution, to lower BOM cost and prolong battery life
- Field-proven in UC and Enterprise Mobility services of world's leading telcos

Key Features

- The world's most compact voice and video engine: works even on 200 MHz processors
- High-resolution video – up to VGA, 30 fps
- Wideband and ultra-wideband voice processing
- SPiRiT scalable voice codec IP-MR™
- Real-time channel adaptation
- Automatic AEC configuration
- IMS and traditional VoIP architectures are supported

Target applications

Carriers' IP services:

- Unified Communications
- Enterprise Mobility

Voice and video softphones on:

- Smartphones (including Apple iPhone)
- WiFi/WiMAX/WiBro handsets
- MIDs

Availability

- All ARM9/ ARM9E based processors (PXA, OMAP3, etc.)
- TI C64
- MIPS32
- Tensilica Xtensa HiFi 2 Audio Engine

Specifications

Speech Codecs	<ul style="list-style-type: none"> ▪ SPIRiT IP-MR* ▪ G.722, G.722.1, GSM AMR WB ▪ G.711, G.711 App.II, G.723.1, G.729AB, G.729.1, GSM EFR, GSM AMR NB, iLBC
Video Codecs	<ul style="list-style-type: none"> ▪ H.263 (up to 30 fps) ▪ MPEG-4 (up to 30 fps) ▪ H.264 AVC (up to 30 fps) ▪ Hardware and software video accelerators support
Video Formats	<ul style="list-style-type: none"> ▪ QCIF to VGA
Video Framerate	<ul style="list-style-type: none"> ▪ Up to 30 fps
Speech Enhancement	<ul style="list-style-type: none"> ▪ Acoustic Echo Cancellation (operates in full duplex mode, consumes 30 MIPS) ▪ Noise Suppressor (tightly integrated with AEC to provide superior voice quality) ▪ Automatic Gain Control (adjusts speaker and microphone gains) ▪ Automatic AEC Configuration Wizard ▪ Voice Activity Detection ▪ Comfort Noise Generation ▪ Clock Drift Control
Control unit	<ul style="list-style-type: none"> ▪ Audio/Video Synchronization ▪ Lip synchronization (audio/video sync) ▪ Video ARS ▪ CPU Load Control
Service unit	<ul style="list-style-type: none"> ▪ Adaptive Jitter Buffer ▪ Video packet loss concealment including forward error correction ▪ Voice Packet Loss Concealment (up to 30%) ▪ PTP Packetizer
Telephony Algorithms	<ul style="list-style-type: none"> ▪ DTMF over RTP in-band (ITU-T Q.23), out-of-band (RFC 2833)
Media Transport	<ul style="list-style-type: none"> ▪ RTP/RTCP (RFC 3550/3551 (IETF SIDD0064/0065)) ▪ SRTP (RFC 3711)
Signaling	<ul style="list-style-type: none"> ▪ Connectivity Pack
Supported OS	<ul style="list-style-type: none"> ▪ Apple iPhone OS ▪ Android ▪ Symbian ▪ Windows Mobile 5.0 (including SmartPhone Edition) ▪ Windows Mobile 6.x ▪ Windows PocketPC 2003 ▪ Linux

* The SPIRiT IP-MR™ codec, which payload is currently being standardized by the Internet Engineering Task Force (IETF), has been developed specifically for packet networks and ensures maximum speech quality on both the LAN and global IP networks such as the Internet

CONTACTS

General: 1-408-540-6033
www.spiritdsp.com

Russia: 7-495-661-21-78

France: 33-623-021-563

Israel: 972-3-736-9763

Italy: 39-02-6680-2557

Germany: 49-641-48-08300

USA: 1-888-374-4410

Canada: 1-888-374-4410

Japan: +81-3-6361-8080

Taiwan: 886-2-2888-1010, 886-2-2696-0055

Korea: 82-70-7780-9910, 82-2-33473-5080

China: 86-21-63502288-820

Singapore: 65-6744- 9789