

Voice&Video Engine for Media Phones

A media phone is a brand new CPE type, pulling double duty as a VoIP phone and a home networking controller. Its larger touch screen enables web browsing, photo viewing, and interaction with connected widgets, without the need to power up a PC or the limitations of a small cell phone screen.

In a word, the media phone is the ultimate all-in-one solution with advanced multimedia, web and phone capabilities – a comprehensive communications hub that keeps users totally connected and in control at home and at the office. And it's a VoIP phone that consumers welcome.

This game changer for telecom operators merges rich Internet experience with communication and enables introduction of compelling profitable IP-based services. Basically a media phone comprises a base station with a touch screen, high-level operating system (HLOS), managing widgets and applications, and a DECT handset.



Media phones bring users a greater range of services and more value than any traditional phone. However to find popularity and user-acceptance, the basic call functionality of the media phone has to be equal or better than that of PSTN phones, which means excellent voice and video call experience. Quality requirements for traditional phones and CPE devices, based on international (ITU-T and TIA) standards, fully apply to media phones.

Securing high-quality VoIP on a shared inexpensive processor, such as Intel® Atom™ or ARM-based MCUs, like Freescale iMX51, is a challenge for most OEM suppliers. To pass operators' quality tests and secure positive user-experience with VoIP on media phones "smart" VoIP software solutions, fighting echo, noise and last mile limitations, are required.

TeamSpirit® 3.0 Voice&Video Engine Embedded powers high quality real-time voice and video calls functionality of media phones.

TeamSpirit® Voice&Video Engine Embedded

TeamSpirit® is a comprehensive pre-integrated solution which includes a library of highly optimized, low-MIPS consuming speech and video codecs, voice and video synchronization tools, speech enhancement algorithms for superior voice quality and network optimizing functionality to handle varying delay (jitter) and packet loss.

Benefits for carriers

- Carrier-grade voice and video for customer satisfaction with IP-based services
- Reliable solution – already deployed for SoIP delivery by leading telecom operators
- Compliant with major (ITU-T and TIA) international voice quality standards

Benefits for OEM

- Tightly-integrated optimized solution with high-level API to power VoIP functionality of the Media Phone with next to none integration efforts
- Fully compliant with major telecommunication standards to help OEMs pass carriers' tests and acceptance procedures
- Provides HD voice and video on the most popular platforms and at the same time is optimized to perform well in multitasking environment

Key Features

- Wideband voice processing for rich HD sound
- Integrated engine framework to secure voice and video quality regardless of connection type
- Network optimization for reliable performance in both managed and unmanaged networks
- Hardware acceleration for better video performance (VGA with up to 30 fps)
- Support for both IMS and traditional VoIP architectures

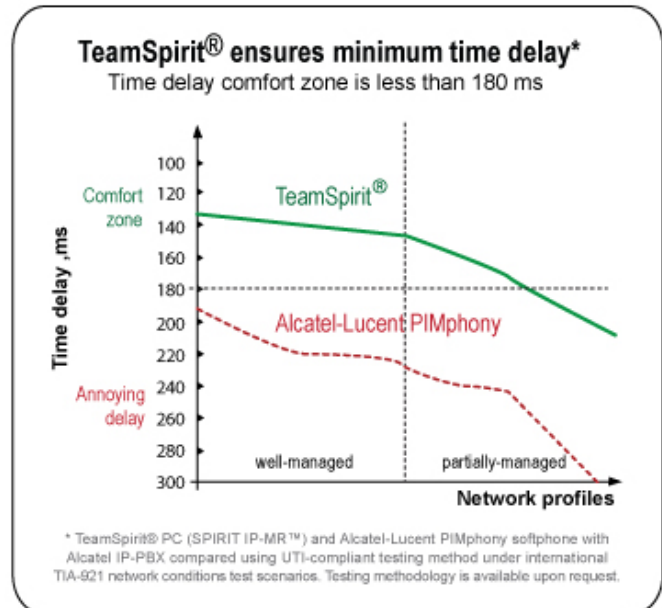
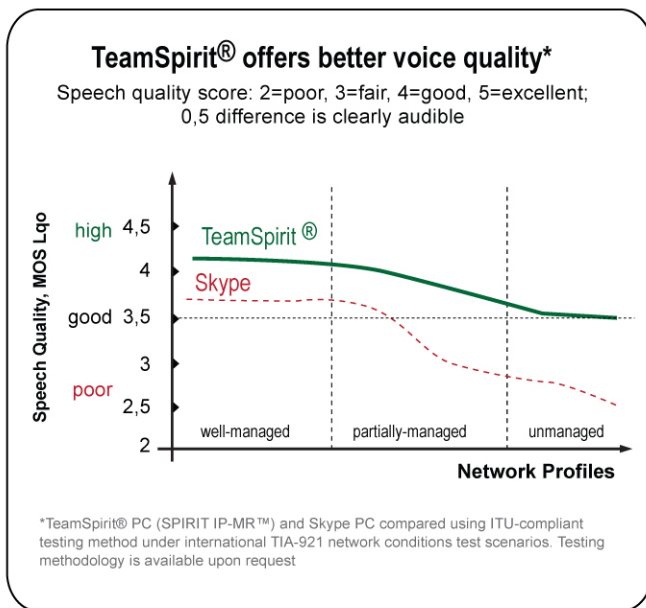
Supported Processors and OS

- Intel Atom™
- TI DaVinci (DM64xx)
- Marvell PXAxx
- ARM9E/11, Cortex A8
- TI OMAP3
- Google Android
- Ubuntu, Midinux, Moblin

The Engine deals efficiently with all the IP network issues including echo, noise, packet loss, last mile congestion, etc. Thanks to the highest level of components integration, SPIRIT's Voice&Video Engine successfully runs on regular ARM processors, providing voice and video conferencing option on resource-constrained platforms in multitasking environment. However to satisfy the most demanding users with a high-end product, SPIRIT is pleased to offer its TeamSpirit® Engine on TI DaVinci (DM64xx) and OMAP platforms. The Engine's optimization for these platforms enables significant performance boost to provide end-users with HD voice and video. High-level API makes the integration of the complex voice and video processing solution quick and easy.

TeamSpirit® Engine Means Voice Quality

The TeamSpirit® Engine outperforms competitive solutions in voice quality, providing the same high quality level with minimal voice processing delay across both public unmanaged (Internet) and corporate managed (LAN) IP networks, including wireless.



TeamSpirit® is fully compliant with major telecom standards to help OEMs to pass test and acceptance procedures required by telecom operators:



SPIRIT Voice&Video Engine Powers the Breakthrough Media Phone for Korea Telecom

Carrier: **Reigncom (owner of the iRiver brand)**

Device brand: **iriver**

OEM: **ReignCom**

TeamSpirit® Voice&Video Engine Embedded provides carrier-grade voice and video for Reigncom Wave Home, an advanced media phone, that provides multimedia, web and phone capabilities and is intended to be used for SoIP (Service over IP) by the leading South Korean telecom operator Korea Telecom.

"We would like to emphasize the high quality of the software and excellent integration support we received from SPIRIT."

Justin Hwang, VP Products, Reigncom



SPIRIT-powered WAVE Home Media Phone

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