Offered as SDK and System Software
Off-the-shelf offering, reduces time to market
Customizable for application specific requirements
Robust and field-proven technologies
Best-in-class performance and quality
Ittiam’s award winning Video Communication System for Original Equipment Manufacturers (OEMs) include high quality Codecs and production ready Software Systems for applications in Video Conferencing. Available for licensing as integrated SDKs, VCS enables OEMs to deliver enterprise grade quality products that are interoperable with standard video conferencing systems.

The entire range of VCS covers all your video conferencing needs ranging from smartphone, tablets, desktop video phones, PC’s and room conferencing systems.

Awarded for breakthrough innovation in video communication technology - VCS delivers industry leading performance and features for video conferencing. It encompasses an innovative patent-pending Embedded Bridge technology that enables a single device to function simultaneously as an end-point as well as a bridge or MCU.

**PRODUCT SUITE / OFFERING**

- Complete Video communication system (VCS) with media (Video and speech), signaling and application subsystem
- API Document and User Guide for the DM8168 Software and the media subsystem software included in the VCS application.
- Driver Abstraction Layer (DAL) Software in Source form – for easy porting to custom hardware board
- Application controller and GUI in source form for fine-tuning the application

**STANDARD APPLICATION FEATURES**

- Full-duplex Video Communication with AAC/G.7xx and H.264 / H.263
- Multi-prong AV synchronization
- Dynamic bit rate and frame rate adaptation
- Video error concealment
- Adaptive Jitter adaptation, Packet loss concealment and automatic clock skew detection and correction
- User configurable settings and management
- Comprehensive SIP signaling
- NAT traversal using STUN, ICE and TURN
- Functional GUI with features like media settings
- Multi-party (up to 4-way) audio and video bridging.

**ADVANCED APPLICATION FEATURES**

- Full-duplex Acoustic Echo Cancellation (AEC) to remove echo and ensure natural conversation
- Intelligent, auto-adaptive bandwidth allocator to learn and adapt to the continuously changing network conditions
- Low-delay rate control for improved internet performance
- Loss concealment for better picture quality during loss
- HD Multi media content sharing
Video Features / Formats

**Video Input:**
- Analog; Composite in; DVI; HDMI
- Supports multiple inputs simultaneously

**Video Codec:**
- H.264 HP, H.264 BP, H.263
- Up to 1080p 60 frames/s, support for H.264,
- Up to 4CIF 30 frames/s support for H.263

**Video Output:**
- Analog; Composite out; HDMI; DVI
- Supports multiple display configurations

**Audio Input:**
- Line-in; HDMI

**Audio Codec:**
- G711, G722, G722.1C, G723.1A, G729

**Audio output:**
- Headphone / speaker out / HDMI

**Voice / Video Quality features:**
- AEC, ANR, Equalizer
- VAD/CNG, PLC, AIB, TSM, CPT, DTMF
- RTCP based automatic bit-rate adaptation
- Distortion Based Refresh, Adaptive Intra Refresh
- Generic slice setting including single NAL per slice option

**Framework features**
- Comprehensive, multi-prong AV Sync
- User configurable display resolution / position for remote view and self-view
- EPTZ for capture and display

**User Features**
- Configurable target encoded frame rate and bit rate (up to 1080p 60 frames/s )
- Run time controls for target encoded frame rate and bit rate
- Init time and run time control of display settings

**Standards Compliance**
- H.264 / H.263 video codec standard
- RTP packetization and de packetization of data as per RFC3550/3551, RFC2190, RFC 3984 (Mode 0, 1)
- Bit compliant with ITU-T G.XXX specifications.
- Out of band DTMF signaling Compliant to RFC2833
- RFC 3261 compliant SIP/UA

**Product Suite / Offering**
- Complete Video communication system(VCS) with media (Video and speech), signaling and application subsystem demonstrating multi-party HD video conferencing.
- API Document and User Guide for the Software and the media subsystem software included in the VCS application.
- Test Plan and Test Report Documents for the Software.
- Driver Abstraction Layer (DAL) Software in Source form – for easy porting to custom hardware board
- Application controller and GUI in source form for fine-tuning the application
- Optional: Custom Hardware Reference Design and Associated BSP

**Target Products**
- Desktop Media-phones
- Tablets
- Smartphones
- Personal/Executive Systems
- Room conferencing Systems
- MCU Servers

**Offering**
- System Software
- Media Engine
- Signaling Software
- Board Support Package
- Custom hardware if required

**OS**
- Android™
- Linux
- iOS

**Demonstrations**
- Ti and Qualcomm Platform
- On any ARM-Android mobile device

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Some of our valued customers...

About Ittiam
Ittiam Systems Private Limited, headquartered in Bangalore, India, is a technology company singularly focused on embedded media centric systems. Ittiam’s customers include world’s leading electronics companies for its software-and-system IP and semiconductor companies for its system-on-chip IP. Embedding Ittiam IP inside, the annual volume of customers’ products shipped such as Smartphones, Tablets, Video Communication Devices and Wi-Fi Chipsets is in several tens of millions units.

For more information, please visit www.ittiam.com or contact mkt@ittiam.com or Your regional local contact listed below

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