BEEHD for Personal Devices

Audio and Video Communications Client Framework for iOS Devices

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BEEHD for Personal Devices is a complete Audio and Video communications client framework solution. It enables integrators, service providers, application developers and device manufacturers to rapidly build and launch Audio and Video applications on top of Apple's iOS-based devices, utilizing intuitive APIs.

BEEHD for Personal Devices is designed for:

- ODM/OEM and device manufacturers looking to add Audio and Video communications, such as V^2oIP, VoLTE and ViLTE
- System integrators looking for fast and easy integration of mobile communications clients for PS-LTE, conferencing and similar platform solutions
- Service providers wanting in-house Audio and Video services based on mobile handsets
- Application developers looking for a protocol-rich SDK for media, signaling and security
- Chipset vendors looking to add fully-integrated IP multimedia subsystems to VoLTE and ViLTE-compliant endpoints
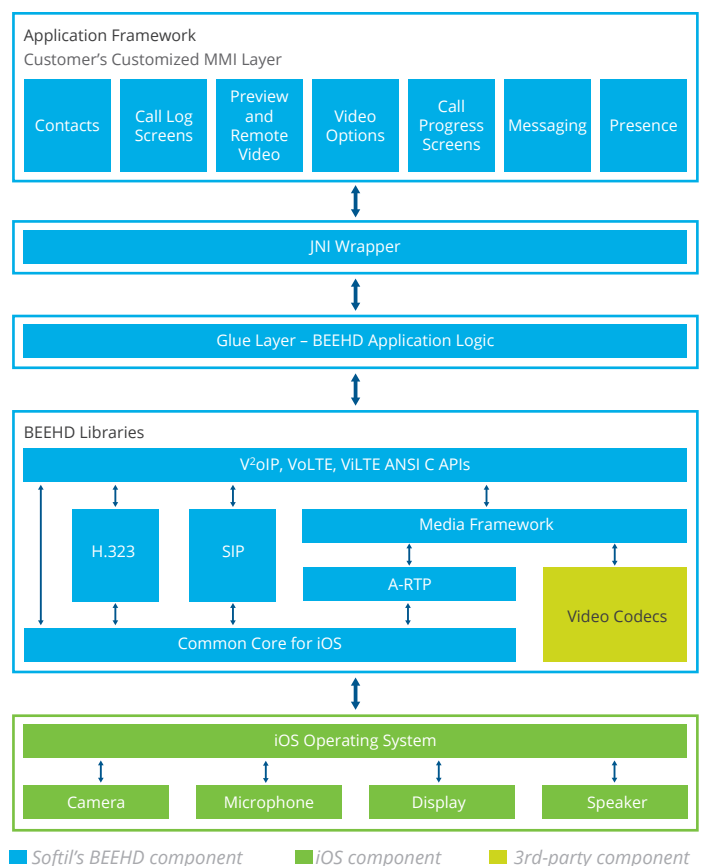
Highlights

- **Shortest Time-to-Market (TTM)**—BEEHD for Personal Devices significantly reduces development, integration and testing time required to deploy Audio and Video communications clients
- **Interoperability**—Based on more than 20 years of market leadership in the V^2oIP market, all application aspects are standards-compliant and rigorously tested for interoperability
- **Highest Quality of Experience**—Utilizes advanced algorithms to ensure superb Video quality even in harsh network conditions
- **Compliancy with 3GPP and IETF Public Safety over LTE** standards for Mission Critical Communication

Technology Offering

BEEHD for Personal Devices provides an optimized solution for devices running Apple's iOS operating systems:

- Pre-integration into cameras, displays, speakers, microphones and other peripherals
- Support of multiple standards-based signaling protocols
- Superior Audio and Video quality, backed with error-correction tools and advanced codecs
- Standards-based authentication and encryption
- Compatibility with multiple hardware platforms and chipsets
- Push-to-Talk (MCPTT) and Push-to-Video
- Group communications
- Presence and IM

Modular Architecture

Application Framework
Customer's Customized MMI Layer

| Contacts | Call Log Screens | Preview and Remote Video | Video Options | Call Progress Screens | Messaging | Presence |

JNI Wrapper

Glue Layer – BEEHD Application Logic

BEEHD Libraries

V^2oIP, VoLTE, ViLTE ANSI C APIs

H.323 | SIP | Media Framework | A-RTP | Video Codecs

Common Core for iOS

iOS Operating System

Camera | Microphone | Display | Speaker

■ Softil's BEEHD component   ■ iOS component   ■ 3rd-party component

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Comprehensive Standards and Features Support:

Product Specifications			
Signaling Protocols	■ SIP (RFC 3261) ■ IMS/VoLTE SIP	■ H.323 V6 ■ Presence and IM: SIMPLE	■ FW/NAT Traversal: H.460, ICE, STUN, TURN
Management	■ Configuration and provisioning logger ■ Open APIs	■ Call history ■ Contact list management (in application)	
Security	■ AES-128 and AES-256 ■ TLS	■ IPsec ■ SRTP	■ H.235 ■ IKE
Supplementary Services	■ Hold ■ Mute	■ Transfer ■ Forward	■ Multi-parties (using MCU) ■ Inband DTMF (RFC 2833)
Quality	■ Reed Solomon FEC (Forward Error Correction)	■ NetSense™ bandwidth estimation and adaptation technology	
Collaboration	■ For SIP: BFCP ■ For H.323: H.239	■ Ancillary data channel for user custom data communication	
Audio	■ G.711 ■ G.722 ■ G.722.1 ■ G.729	■ AMR WB, AMR NB ■ Automatic Gain Control (AGC) ■ Audio Echo Cancellation (AEC) ■ Noise Suppression (NS)	■ Audio Packet Loss Concealment (PLC) ■ Audio Recording
Video	■ H.264 ■ H.263 ■ Frame rate: up to 30fps	■ Resolution: CIF/VGA/SVGA/720p/1080p ■ Supports H.264 cameras ■ Capture snapshot to JPEG file	■ Text overlay ■ Video recording
Interoperability	■ Interoperable with all leading vendors and standard video calling systems		
Public Safety	■ VoLTE IR.92 and IR.94 ■ Push-to-Video	■ Push-to-Talk ■ One-to-many Audio and Video	■ Many-to-one Audio mixing
RCS – Rich Communication Suite	■ Option-based Capability exchange ■ Standalone Messaging ■ CPM, CPIM-based Instant Messaging ■ IM large message mode (MSRP)	■ Multiple recipients (multi 1-1 IM) ■ Store & Forward ■ Integrated Messaging Inbox, including SMS ■ Voice and Video Calls	■ SIMPLE presence ■ File Transfer ■ XDM

For more information, contact Softil at info@softil.com

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