Conaito Technologies

Introduces the VoIP Video EVO.NET SDK - A simple way to VoIP- and Video-enable your applications

VoIP Video EVO.NET SDK
A simple way to VoIP- and Video-enable your applications - Release v4.4

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VoIP Video EVO.NET SDK
A simple way to VoIP- and Video-enable your applications

The VoIP Video EVO.NET SDK contains a high performance VoIP and Video conferencing client capable of delivering crystal clear sound and video capturing even for both low and high-bandwidth users. Conaito VoIP Video EVO users are arranged in a tree-structure where each node is a room/channel where users can talk, see Users, send instant messages and share files.

Examples of such applications could be Internet phones, conferencing tools, surveillance systems, eLearning systems, or any other type of application where audio and video transmission between networked clients is an essential part of the application.

The SDK consists of both a client and a server. The VoIP Video EVO server is a standalone application which provides user authentication and keeps track of connected clients.
It can operate in both LAN or WAN (Internet) environments. Each server instance is capable of serving 1000 simultaneous clients.

A VoIP Video EVO client can connect to the server and can from there interact with other clients. The client is wrapped in a .NET DLL file which enables developers to add the following features to their application:

- Multiple active real time audio and video streams
- Instant text messaging
- File sharing
- Tree structure for grouping clients
- Audio capture supported by DirectSound and WinMM
- Video capture supported by DirectShow
- CELT and Speex audio codecs for VoIP supporting both high and low bandwidth usage
- Automatic Gain Control (AGC) and 3D-sound positioning
- Audio transmission using push-to-talk (PTT) and voice activation (VAD)
- Store all audio transmissions to either .wav or .mp3 format
- Video codec supporting variable (VBR) and constant (CBR) bitrate as well as configurable quality
- User account system for server authentication
- Secure data transmission using TLS and BlowFish encryption (Secure Edition only)

Highlights of the version 4.4:

- **Desktop sharing** supports sharing of entire desktop, active window and specific window
- **Echo cancellation** for removing echo from speakers

- **Record audio to single file and separate audio file for each user in channel**
- **Record audio as WAV and MP3 (using lame_enc.dll)**
- **IPv6** support
- **Speex VBR codec**
- **Updated CELT codec**
- Enterprise Secure Edition can connect to Non-Secure EVO servers
- Bitrate limit for audio codecs
- Restart sound system
- Automatic resampling of unsupported sample rates
- Automatically become channel-operator
- See own video stream
- Video sessions start faster
- Specify default subscriptions in properties
- Loop audio files played to channel
- Free-for-all option in classroom channels
- User-typing notification
- Custom message type
- User account with initial-channel
- User account with operator channels
- Windows Audio Session support (low latency sound system)
- Operator receive only channel type
- Improved audio device identification
- Unicode video device name

Key features of the VoIP Video EVO.NET SDK – Enterprise/ Secure Edition:

- VoIP and Video conferencing with crystal clear quality even for both low and high-bandwidth users (CELT and Speex Codec)
- Full Duplex - VoIP and Video conferencing solution (multi-user conferences)
- Comes with VoIP Video Server for Windows as well Linux (running as service).
- Work with DirectSound as well with Windows Audio.
- Record conferences to WAV and MP3 - Voice conferencing recording (*.wav and *.mp3 format)
- Cryptography (TLS and BlowFish encryption) - Secure Edition only
- Arrange users in rooms/channels with topics and passwords.
- Full rooms/channels control including protection.
- User status control (participant available, away) including status messages.
- Get user talking function - Check whether a user is talking.
- Private and public instant text messaging.
- Broadcast server messages - sending text messages from server to all connected users.
- Channel Messages as well Message of the Day support.
- File Transfer - Share files among users in the same channel.
- Ban/ Un-Ban/ Kick Clients as well as set Client connection number limits.
- Set Clients to Operator or Administrator for different rights.
- Listing of participants and rooms/channels.
- Push-to-talk (set Keyboard shortcuts) to enable voice transmission.
- VAD (Voice Activity Detection) to enable voice transmission.
- Denoising - Noise reduction of outgoing audio
- AGC (auto gain controller) - gaining of outgoing audio by set the voice gain level.
- Position users using 3D sound.
- Microphone and Speaker Volume with Mute support.
- Microphone and Speaker Visualization support
- Individual volume for each user including Mute all.
- Mic Boost - more Microphone sensitivity
- 8 KHz, 16 KHz and 32 KHz voice recording each with multiple voice quality levels.

- Throughput between approx. 600 to 6000 bytes/sec. depending on voice quality.
- Packet loss resistant.
- Build-In Auto Voice Lag Controller
- Bound Data Control (Data flow control)
- NAT (Router) & Firewall friendly
- Works with all kinds of Internet connections
- Royalty free licensing
- No Yearly/Monthly fee
- Very easy to incorporate
- Comes with ready-to-run Live Demo to demonstrate all the features

Audio Capabilities

- Multiple active audio streams
- Push-to-talk (PTT) and voice activation (VAD) for audio transmission
- Automatic Gain Control (AGC)
- Acoustic Echo Cancellation (AEC)
- CELT and Speex audio codecs for VoIP
- Store conversations to either .wav or .mp3 format
- Audio capture supported by DirectSound and WinMM
- 3D-sound positioning in DirectSound mode

Video and Desktop sharing Capabilities

- Multiple active video streams
- Theora video codec supporting variable (VBR) and constant (CBR) bitrate
- Video capture supported by DirectShow
- Desktop sharing supports sharing of entire desktop, active window and specific window

User Administration

- User account system for server authentication
- Tree structure for grouping users in channels
- File sharing between users in a channel
- Instant text messaging

Security

- Secure data transmission using TLS and BlowFish encryption (Enterprise Secure Edition)

The VoIP Video EVO.NET DLL comes for .NET Framework development using an object-oriented approach. Numerous examples are included with the SDK so developers can easily get started developing their own applications. Check out the documentation in the navigation bar to the right for a complete tour of the SDK's capabilities.

Having the above features available makes it simple to develop any type of VoIP- and Video-enabled application, like e.g. a teaching tool, live support, chat, meeting tool, a multiplayer game or any other type of application which requires users being able to talk, type messages and send files to each other.

For VoIP Video EVO clients to be able to interact with each other they must connect to a VoIP Video EVO server which keeps track of where users are located and forwards voice/video-data packets between clients (p2p is depending possibly!). The VoIP Video EVO server is able to serve 1000 simultaneous clients and can be hosted in both LAN and internet environments.

Security

The licensed VoIP Video EVO.NET SDK is available in both an encrypted (Enterprise Secure Edition) and an unencrypted (Enterprise Edition) version. For most applications the unencrypted (Enterprise Edition) version provides enough security in the way that a server and the channels on a server can be password-protected so unauthorized users are denied access. If, however, it is also important that the data being transmitted between clients and the server then it is necessary to use the encrypted (Enterprise Secure Edition) version of the SDK which uses TLS and BlowFish encryption. The API exposed by the VoIP Video clients and VoIP Video EVO Server in both the encrypted (Enterprise Secure Edition) and unencrypted (Enterprise Edition) SDK are exactly the same.

Development environment

The VoIP Video EVO.NET SDK provides the documentation, samples and related libraries you need to integrate with other applications or systems.

The contents of VoIP Video EVO.NET SDK and the supported development environments include all of the necessary software components for building systems based on VoIP Video EVO.NET SDK including documented operational software applications, examples (with source code), explanations as well as necessary service programs, libraries and components.

The supported development environments include:

- Visual Basic .NET
- Visual C++ .NET
- Visual C# .NET
- Borland Delphi.NET
- and all development environments with .NET Framework support

Server system requirements:

Operating system: Windows, Linux

Please, don't hesitate trying our VoIP Video EVO.NET SDK at once and get yourself, as well as your customers, the exciting experience of easy, fast and high quality standard applications which VoIP- and Video-enable your application.

We hope you enjoy the VoIP Video EVO.NET SDK – A simple way to VoIP- and Video-enable your applications.

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