eConf

A high quality VideoConferencing Software over IP networks

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eConf (France Télécom R&D)

- **A multiple-standard videoconferencing over IP software package. (H.323, SIP, H324M)**
- **download to different terminals (desktop, group terminal, mobile platform (PDA,…))**
- **eConf integrates the necessary protocols for optimal audio and video quality, even with error-prone networks**
- **Differents level of SDK (Active X SDK, SKIN SDK,…)**

eConf: Architecture Overview

eConf for Home users (PC / Laptop)

eConf for Corporate Users

Technical features

- Supported systems
  - Windows 98, 98SE, ME, NT4, 2000, XP
  - PDA (Pocket PC 2002)
  - Compliant with standard Audio/Video Devices (Webcam, Capture cards, …)
- Audio
  - codecs supported:
    G.723.1, G.722, G.711, TDAC Wide Band (32/24),… ,AMR,VBR
  - echo cancellation for hands-free use
  - efficient management of packet loss (still good quality with more than 10 % lost)
  - jitter management adaptive to network behaviors.
- Video
  - implementation of latest video technologies (H.263+) for optimal quality at any bit rate (30 kbit/s to 10 Mbit/s).
  - video codecs supported: H261, H263 and H263+ (annexes I,J,T,N,K)
  - transmission adapted to cope with network disturbance, a **key factor** for networks without QoS management.
- Protocols
  - H.323, SIP, H324M. Tests performed at international events for maximum interoperability (IMTC Superop, Sip-It)
  - Adaptations can be made very quickly to ensure compliance with new standards

Advantage of software development kits (SDK)

- **eConf ActiveX Development Kit**

  ➔ Integrate videoconferencing/IP telephony into a Web page
  - Add Click to See services to your portal
  - Independent of protocol complexity

  ➔ Develop applications to adapt eConf to specific environments :
  - Use any programming language (JAVA, VB, C++, ..)
  - Distance learning, medical use, ..

eConf example

- **eConf Skin Development Kit**
  - ➔Create your own graphical user interface
    - ♦ Using MPEG4-like language
    - ♦ Differentiate your services :
      - – Each customer can have a personalized graphic interface

Context of Presentation at ETSI STQ Workshop 02/2003

- Two consecutives H.323 communications calls :
  - ➔ Calls Configurations :
    - TDAC wide band codec for Audio (bit rate 32 kbit/s)
    - H.263 and after H.263+ for video (maximum bit rate around 300 kbit/s)
    - Hands free mode
    - Packet loss generated from Paris (around 10 %) to show good quality of concealment packet loss algorithms implemented.

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- Web site

  www.econf-communication.com