ComIP

« A high quality voice chat solution »

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What is ComIP?

- **A voice chat solution …**
  - → An audio-conferencing system operating over IP networks
  - → Point to point and multi point
- **With respects to classical audio conferencing …**
  - → Designed for Internet
  - → Flexible and easy to use
    - Conferencing in one click, Invitation, …
    - No reservation, …
  - → Easy to integrate into portals or applications
    - Customizable and adaptable
    - Copes with other running applications
  - → Large scale / Low cost
    - purely software

ComIP architecture

VOICE CHAT
→ WHAT IS COMIP?
COMIP EXAMPLES

ComIP features

- **Basic and advanced Conferencing modes**
  - → Invitation, private channels, groups, moderated conferencing, …
- **Proprietary protocol**
- **Firewalls and NAT compatible**
  - → ComIP makes easier to solve FW problems
    - Two known and fixed ports
  - → ComIP works with clients connected trough NAT
    - Management of private / public addresses
    - Thanks to echo server

ComIP features

- **A software only audio client**
  - → Low size: 400 KBytes (GUI included)
  - → Low CPU request (about 10 % PIII 600 MHz)
  - → Hands free function
  - → Voice activity detection : no network load during silent times
  - → Efficient packet loss concealment algorithm
  - → Designed to be used besides other applications, like network games
    - Hear ComIP + other applications sounds

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APPLICATION EXAMPLES

ComIP features

- **Two audio qualities …**
  - ➔ Modem: Telephone bandwidth (G.723.1 / 6.4 kbps)
  - ➔ High rate: Wideband audio (TDAC, 7 kHz bandwidth, 32 kbps)
- **… Managed by one codec (VBR)**
  - ➔ One codec for all access types
  - ➔ « The best possible compromise between quality and bit rate »

Conference with VBR (3 users)

At STQ workshop, the demo was performed between Internet connected clients. The clients were located at Nice and at Lannion (France). The server was at Lannion.
All clients had PSTN profiles.

ComIP features

- **ComIP Integration**
  - ➔ Client customization
    - ⑦ C++ library, do the GUI you want,
    - ⑦ ActiveX, web plugin, …
  - ➔ Optional Server plug-in development
    - ♦ Customization of events handling
  - ➔ No redundancy with other service elements
    - ♦ No redundant data base, …
    - ♦ Coupling to existing data bases by plug-ins
  - ➔ Adaptation can be performed by France Telecom R&D

VOICE CHAT
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APPLICATION EXAMPLES

ComIP features

- **Service Exploitation**
  - → A very simple platform
    - One regular PC is sufficient for a high number of concurrent users and conferences
    - No CPU limitation
    - Scalable (more UDP conferencing servers can be dynamically added)
  - → Network resources savings :
    - automatic multipoint / peer-to-peer mode switching
    - Low bitrate signaling using proprietary ComIP Protocol
  - → Remote Administration
    - See the connected clients, the current conferences, the Conference Servers status, statistics, …
    - Act on the ComIP Server with admin rights

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APPLICATION EXAMPLES

Examples of ComIP applications:

- **Network Games**
  - ➔ Experimentation over goa.com portal
- **Edata**
  - ➔ Co-browsing plus VOIP
- **Instant Messaging**
  - ➔ Drive audio conferencing from Presence Management
  - ➔ ComIP Voice Chat associated to Jabber based protocol and platform
- **Star Interviews over the Web**
  - ➔ On line programs over ISP portals
    - Some active talkers (moderator + guest people)
    - Listeners (several thousands) request the floor for on-line questions

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