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Mirial Softphone

Professional HD videoconferencing and Desktop Telepresence

HD Visual Communication

Mirial Softphone is the most advanced **software-only client** for professional quality videoconferencing, **today with HD support and embedded MCU capabilities.**

With Mirial Softphone, a webcam and a laptop or desktop PC every user can take advantage of benefits from **visual communication and collaborative work.**

Mirial Softphone is fully compliant with all major **visual communication standards**, and can be seamlessly integrated into every visual communication network.

Easy to use, cost-effective, unmatched quality, compatibility with state of the art video communication equipment: Mirial Softphone is the right choice to bring Visual Communication on every desktop.

Highlights

- ➔ **HD and H.264** video codec on standard PCs
- ➔ Natural, full-motion video up to **2Mbps @ 30fps**
- ➔ **Call Management (2 lines: call hold, call transfer)**
- ➔ **Embedded MCU functionalities (3-party video calls)**
- ➔ Concurrent **H.323** and **SIP** support
- ➔ **Audio/video (VVOLP)** and **audio only (VoIP)** calls
- ➔ **Call recording**, playback and export in **WMV** format
- ➔ **H239** data collaboration
- ➔ **Desktop Video Sharing** mode
- ➔ **Web** integration
- ➔ **Configuration Wizard**
- ➔ **Standard, compact** and **full screen** mode
- ➔ **Contacts** management
- ➔ **Remote Update**
- ➔ **Caller** identification
- ➔ **Wideband** audio, full duplex **Echo Canceller**
- ➔ **Resizable GUI**



Mirial Softphone Specifications

User Interface

Single file quick installer (~10 MB)
No kernel drivers, no reboot needed
Simple interface, intuitive to the non-technical user
Resizable GUI
Web integration (click on a link to call)
Address Book with presence indication
Calls List (quick switch to All, Incoming, Outgoing, Missed).
Automatic **Update** over Internet
Extensive logging providing detailed user problem reports
Realtime graphical statistics for quick problem diagnosis
Support for **multiple languages** (English, Italian and German)
Integrated GUI support for Mirial PSE.VAM Video Answering Machine
Call recording, playback and export in Windows Media Video (WMV) format

Call Control

2 independent lines
Call **hold** and call **transfer**
3-party continuous presence multiconference without external equipment

H.323

Compliant with ITU-T H.323v4, H.225v13
Call Control (H.450.2)
H.239 Presentation (up to 1280x768)
Far End Camera Control (H.224 + H.281)
Call party by E.164 number, H.323 Alias or IP (no Gatekeeper required)
Gatekeeper autodiscovery and automatic re-registration

SIP

Compliant with **RFC-3261** and backward compatible with SIP RFC-2543 equipment, including:
RFC-2396, RFC-2617, RFC-2822, RFC-2833, RFC-2976, RFC-3260, RFC-3261, RFC-3264, RFC-3265, RFC-3311, RFC-3420, RFC-3428, RFC-3515, RFC-3581, RFC-3550, RFC-3856, RFC-3891, RFC-3984, RFC-4488, draft-ietf-sip-183-00, draft-levin-mmusic-xml-media-control-13, draft-roach-mmusic-sip-provisional-media-00, draft-ietf-sipping-cc-transfer-09

Support advanced **SDP (RFC-4566)** and extensions:
RFC-3984, RFC-4573, RFC-4587, RFC-4629, RFC-4796, RFC-4855

Both UDP and TCP transports, with configurable default
Support external Registrar and/or Proxy
Secure authentication: **Digest (MD5), Kerberos, NTLM**
Automatic caching of multiple credentials
Call party by SIP URI or IP/hostname (no Registrar or Proxy required)
Support dynamic codec/IP/port change for each negotiated medium
Send **DTMF** out-of-band as per RFC-2833, or in-band with any audio codec
Presence events as per draft-rosenberg-imp-pidf-00 (X-PIDF)
RFC-3863 (PIDF)
Partial support for SOAP events (SERVICE method)
Video picture fast update as per draft "XML Schema For Media Control"
(INFO method)

Data, Application and Presentation

H.224 + H.281: Far End Camera Control (FECC)
RTSP: Compliant with RFC-2326 (client only)
H.239 presentation up to 1280x768 (emulated in SIP with RFC-4796):

- Multiple monitors support
- Transmit an application window or the entire desktop as a separate realtime video stream (speaker live stream is still visible)
- 4x high-quality antialiasing

VideoSharing mode when H.239 is not available:

- Use the standard video channel to send the presentation instead of the speaker live stream
- Compatible with all endpoints supporting video calls

Audio

G.711 μ -law, A-law
G.723.1 6.3 and 5.3 Kbps:

- VAD (Voice Activity Detection)
- Low Pass Filter
- SIMD (MMX/SSE/SSE2) accelerated

G.722.1 Annex-C (Polycom® Siren14™, 32 KHz super wide-band)
Full duplex, high-quality **Acoustic Echo Canceller**
Full duplex **Audio Denoise Filter** with automatic noise level detection

Video

H.264: HD 720p, 4CIF, CIF, QCIF, SQCIF @ 30 fps max

- Up to 2 Mbps in High Definition (1280x720)
- H.239 up to 2Mbps at WXGA resolution (1280x768)
- In-band dynamic video format changes
- Automatic "quality vs. CPU load" dynamic adjustment.
- SIMD (SSE2/SSE3) and multi-core accelerated (requires Pentium-4 or better CPU supporting SSE2)

H.263: 4CIF, CIF, QCIF, SQCIF @ 30 fps max

- Implemented annexes:
 - Annex-D (unrestrictedVector)
 - Annex-E (arithmeticCoding)
 - Annex-F (advancedPrediction)
- Half-Pel Motion Estimation
- TMN-9 rate control
- Automatic "quality vs. CPU load" dynamic adjustment
- In-band dynamic video format changes
- SIMD (MMX/SSE/SSE2) accelerated

H.263+ (adding the following features to H.263):

- Supported annexes:
 - Annex-I (advancedIntraCodingMode)
 - Annex-J (deblockingFilterMode)
 - Annex-S (alternateInterVLCMode)
 - Annex-T (modifiedQuantizationMode)
- RFC-4629 (ex RFC-2429) RTP media packetization

H.261: CIF, QCIF @ 30 fps max

- Up to 2 Mbps
- Loop-Filter
- Automatic "quality vs. CPU load" dynamic adjustment
- SIMD (MMX/SSE/SSE2) accelerated

Camera support:

- Standard webcams
- High-Definition webcams are supported at resolutions up to 1280x1024
- PAL/NTSC DV cameras over Firewire IEEE-1394 are supported (on Windows XP or better only)

Video input aspect ratio is automatically detected and adjusted to fit the output aspect ratio

Network and Quality of service (QoS)

Automatic bandwidth control, **adaptive to network condition**
Support **asymmetric input/output bandwidths** (e.g. ADSL), up to 2 Mbps RX + 2 Mbps TX
Configurable port ranges for signaling and media protocols
Static NAT support
Systems with multiple IP are supported
Automatic or manual IP address selection is available
Configurable **DIFFSERV** code

Minimum Requirements

Windows 2000/XP/2003/Vista (including 64 bit versions), Microsoft DirectX 9.0c or higher
PII@300Mhz (audio only calls), PIII@800Mhz (audio/video calls), P4@2.0Ghz (audio/high-res video calls), Dual Core CPU recommended for H.264 HD encoding
512Mb Ram (1GB recommended) and 15Mb hard-disk space

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