



# mirial

## Mirial Softphone

Professional Full-HD video conferencing and Desktop Telepresence on Windows and Mac

### HD Visual Communication

Mirial Softphone is the most advanced **software-only client** for professional quality video conferencing, **today with Full-HD support, embedded transcoding MCU capabilities and advanced media encryption.**

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

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

- ➔ Available for Windows and Mac OSX platforms
- ➔ H.264 up to Full-HD (1080p) video codec on standard PCs
- ➔ Natural, full-motion video up to **2Mbps @ 30fps**
- ➔ **Call Management** (2 lines: call hold, call transfer)
- ➔ Embedded transcoding **MCU functionalities** (3-party video calls)
- ➔ **Media encryption**
- ➔ Concurrent H.323 and SIP support
- ➔ **Call recording**, playback and export in WMV format
- ➔ H.239 data collaboration
- ➔ **Desktop Video Sharing mode**
- ➔ **Web integration**
- ➔ **Configuration Wizard**
- ➔ **Standard, compact and full screen mode**
- ➔ **Resizable GUI**
- ➔ **Contacts management**
- ➔ **Remote Update**
- ➔ **Audio/video (VVoIP) and audio only (VoIP) calls**
- ➔ Wideband audio, full duplex **Echo Cancellor**



# 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, German, Spanish)  
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

RFC compliancy:

RFC-2396, RFC-2543, 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-3859, RFC-3860, RFC-3863, RFC-3891, RFC-3960, RFC-3984, RFC-4488, RFC-4961, RFC-5168, draft-ietf-sip-183-00, draft-roach-mmusic-sip-provisional-media-00, draft-rosenberg-imp-pidf-00, draft-ietf-sipping-cc-transfer-09

Support for **DTLS-SRTP Media Encryption**:

draft-ietf-sip-dtls-srtp-framework, draft-ietf-mmusic-sdp-capability-negotiation, draft-ietf-avt-dtls-srtp, RFC-4347 (Datagram TLS), RFC-3711 (SRTP)

Support for 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**)  
Compliant with RFC-2326 (client only), RFC-2396, RFC-3550, draft-ietf-mmusic-rfc2326bis-18 (RTSP bis)  
Session Description Protocol (SDP):  
RFC-3555, RFC-3984, RFC-4566, RFC-4573, RFC-4587, RFC-4629, RFC-479, RFC-485, draft-even-avt-h263-h261-options-00 (used for backwards compatibility)

**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  $\mu$ -law, A-law**

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

## Video

**H.264: 1080p, 720p, 4CIF, CIF, QCIF, SQCIF @ 30 fps max**

- Up to 2 Mbps in High Definition (1920x1080)
- H.239 up to 2Mbps at WXGA resolution (1280x768)
- In-band dynamic video format changes
- Automatic "quality vs. CPU load" dynamic adjustment

**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
- In-band dynamic video format changes
- Automatic "quality vs. CPU load" dynamic adjustment

**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

Camera support:

- Standard webcams
- **High-Definition webcams** and **HDMI capture boards** at resolutions up to 1920x1080
- **PAL/NTSC DV cameras over Firewire IEEE-1394** (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

Operating System:

- Windows XP / 2003 / Vista / 7 (including 64 bit versions), DirectX 9.0c or higher
- Mac OS X 10.5 Leopard or higher

P4@2.0Ghz (audio/high-res video calls)

Core 2 Duo class, 2.33 GHz (H264, 720p video calls)

Core 2 Quad class, 2.66 GHz (H264, 1080p video calls)

1GB Ram (2GB recommended on Vista) and 30Mb hard-disk space



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