



## **VIRTUAL MEETING: TECHNICAL REQUIREMENTS**

Platform access is not bound to huge investments in hardware equipment and software components; this represents an important surplus with respect to traditional video conferences.

Virtual Meeting requires just a computer or mobile equipment with browser, an Internet connection and the presence of an Adobe Flash Player plug (already present in more than 95% of computers connected to the Internet). This signifies that the user does not have to worry about purchasing, installing and configuring any type of additional software. For File Sharing to function correctly the browser must be connected to Javascript.

### **SIMPLICITY: THE WINNING CARD**

Lato hardware, to make full use of the functionality of the vide-conference Web platform, just a normal webcam and headphone with microphone are sufficient.

We advise use of headphones with integrated microphone or microphone with ear piece (these eliminate or lessen the Larsen effect and the fastidious disturbance due to "headphone echo"). The quality of the hardware equipment (webcam, headphone and microphone) is important, but not fundamental: in fact, Virtual Meeting is developing and continuously testing to offer an optimal quality of service even with low range equipment

On request, our company is able to advise and offer clients a wide range of hardware equipment tested by us. The service is possible thanks to collaboration with important distributors in computer products.

### **Minimum connectivity requirements**

The necessary bandwidth for organizing a meeting is strictly dependant on the number of participants at the meeting, the typology of data transmitted by them (audio/video/data sharing) and by the maximum bandwidth for each single flow transfer or "bitrate". Structured bitrate values (audio/video quality) are defined for a single user (1 flow transfer (bitrate) = 1 participant). For example, a conference held by three participants with the quality programmed to "Medium" – whereby all users transmit audio, video and data – will request of each participant a minimum availability of bandwidth in upload for an amount of about 128bps and a minimum availability of bandwidth in download of about 256bps (128 x 2). By programming the quality level to "High", each active participant will be asked for a minimum availability of bandwidth in upload of about 300 Kbs and a minimum availability in download about 600Kbs (300 x 2).

### **In evaluating the suitability of one's own bandwidth choice in supporting participation at the meeting it is necessary to bear in mind that:**

- In the case where the access line to internet you are using is at the disposal of several users inside the company, indications from the supplier regarding the bandwidth relative to the effective minimum availability of bandwidth in upload and download (eg. Adsl 128 kpps upload; 640 kbps download) cannot respond to the real availability of bandwidth resources with the result, therefore, of being fractioned between the different users.
- Connectivity suppliers for internet access guarantee, for most of the contracts, only a fraction of bandwidth in upload and download declared under the contract (eg.: ADSL 128/640): the so-called "guaranteed bandwidth".
  - Public internet does not offer users, regardless of the afore-mentioned points, a quality of service (QoS) guaranteed capable of covering all the lines linking the client to the server.

- Communication in real time on internet implicates the need to have the availability of accesses to internet with constant distribution values over time. Where availability in effect is adequate to the requested standard in terms of quantity, but only available in inconsistent ways (huge oscillations between declared maximum availability and the more reduced availability), fruition of meeting is subject to interruptions or to a series of automatic disconnections for the client during meetings underway.

In case of inadequacy of one's own supply with regard to bandwidth requirements indispensable for a total fruition of all audio/video/sharing data sent to all participants at the conference, it is possible to reduce the quantity of data in reception by disabling video data reception of one or more participants until a sustainable load level on the bandwidth's download is obtained.

The client must be connected to internet with the possibility of linking up to TCP on doors 80, 82, 443 and 1935. Consequentially, traffic can be obstructed or impeded if access to the net is filtered by Proxy or Firewall. In this case it is necessary to contact the net administrator to enable the necessary changes to the internet network access policies to be carried out.

**Where traffic on door 1935 is denied the system will automatically execute a tunnelling on door 80: this reduces performance and increases the latency time!**

---

 **Detail of requirements:**

- Internet connection (ADSL), headphone with microphone and Webcam
  - Browser with installed Adobe Flash Player® plug (version 8 or superior)
  - Browser with active execution of Javascript
  - the following communication doors open and available: 80, 82 (http), 443 (https) and 1935 (rtmp)
- 

**Virtual Meeting... Free to communicate**

---

**Virtual Meeting by Virtual Valley Srl - ITALY**

Sondrio, Via Parravicini, 4 (registered office)

Sondrio, Via Mazzini 70 (executive office)

Milano, Viale Monte Santo 1/3 (marketing office)

[www.formeeting.it](http://www.formeeting.it) - [www.nostressmeeting.it](http://www.nostressmeeting.it) - [www.nostressmeeting.com](http://www.nostressmeeting.com)