

Product Review

Motorola Ojo Personal Video Phone

by

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1 Product Overview



Figure 1
OJO™ Video Phone by Motorola
www.motorola.com

Improving personal communication, Motorola® recently launched Ojo™, a personal video phone designed for broadband customers. By means of high-speed internet connection, people will be able to enjoy real time and face-to-face communication.

Using an enhanced version of the H.264 digital-compression standard, MPEG4 videos are compressed at 110Kbps to travel over the Internet. Such a low-compression rate avoids delays and enables transmission of 30 frames-per-second video on the vertical Ojo display. Furthermore, no additional network devices are needed for sending and receiving video calls [1].

By trading off high technology and phone simplicity, the Ojo™ addresses customer's needs in terms of quality of service and easiness to use. By synchronizing full-motion video and audio over IP-based connections, high quality requirements may be met [2].

2 Functionality



Figure 2 - OJO™ Video Phone Network
www.motorola.com

The operational environment of the Ojo™ video phone is very simple since high-speed internet service is the single network requirement. In summary, the Ojo™ video phone is connected to an existing cable or DSL modem and also, to the pre-existing traditional phone as illustrated in **Figure 2**. Such network topology enables video and regular voice calls to be placed over the IP-based network, reducing costs associated with non-local and international calls. In addition, due to Internet capabilities, the system supports free calls [3] between Ojo™ users throughout the world.

3 Features



Figure 3 - OJO™ On-screen Menu
www.motorola.com

Since the Motorola Ojo™ video phone was developed to “connect homes” [1], delivering easy and intuitive access features was a necessity as many users are not technology savvy. Following this approach, Ojo™ does not require any login or password information and offers easy *plug in and play connections*. The *on-screen menu* assist users to place calls and manage the phonebook and historic of calls. Also, efficient *messaging features* including video and audio messages, as well as picture caller ID are available.

Regarding to *innovative phone design*, Ojo™ provides an elevated high-resolution 16:9 LCD display that assures eye-to-eye contact as well as improves the area covered by the embedded camera. Full-duplex speaker phone with advanced noise reduction is also provided.

Flexibility and *privacy* capabilities are supported by the cordless handset that enables to make voice-only calls using either the public service telephone network (PSTN) or a voice-over-IP (VoIP) network. In addition, by exploiting session internet protocol (SIP) and network-based call signaling (NCS), the Ojo™ video phone assures *Interoperability* among different systems integrating it with other phones. Finally, another important feature of Ojo™ is the full two-way speakerphone capability that permits both, sender and receiver, to talk without cutting outs [1,2,3,4].

According to Paul Afieri, Motorola® spokesman, the company intends to aggregate email and security-monitoring capabilities into the Ojo™ video phone soon [3]. In addition, future enhancements include the ability to create custom video messages for incoming calls [1].

4 Potential Bottlenecks

Transferring data over the Internet offers enhanced features and cost advantages when compared with traditional systems. However, transmitting voice and video over packed-based networks raise new concerns such as bandwidth and security. Likewise other VoIP products that use the Internet as communication channel, the Ojo™ video phone may present latency and frame delays due to bandwidth limitations and media sharing.

Another import point to be considered is the high initial price, proposed by Motorola® as \$799, it may turn down the product adoption and naturally disable first buyers to utilize inter-user video phone capabilities such as free calls.

Finally, service providers are already charging extra monthly fees for supporting video communication services in its network system [5].

5 References

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