Title: VIDEOPHONIA IN LARGE SCALE

Abstract: Videophonia in large scale with the use of microphones, video cameras (1) and conventional TV set receivers (3) and an integrating interface (2) able to accomplish calls using TCP/IP (Transmission Control Protocol - Internet Protocol) data communication protocols or another ones with similar function, signalize receiving calls showing subscribers caller address, using the modulator and demodulator equipments (modem) (7) and as sign infrastructure network one or more of the following system: the pay TV hybrid network, constituted by coaxial cables and optical fibers, metallic and optical fibers cables telephony operators plant, metallic and optical fibers cables of allowed telecommunication carriers network, radio frequencies including infrared zone or even electrical energy transmission plant (5), transiting by one or more central stations (6) equipped with router equipments strategically located.
For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.
VIDEOPHONIA IN LARGE SCALE

The present descriptive report refers to a video phonic service, which has been developed to be used by people in general, directly from residences or companies' offices.

With the increasing of optical cables installation throughout the country, reaching more and more cities, through buried cables running with roads or railways or also using poles of electrical energy networks, the telecommunication analysts forecast is that the cost of using this type of media will suffer a sensitive reduction in actual prices, due to the amount of dark fibers that the operators are trying to activate, offering then to their customers.

The cable TV companies have invested seeking to qualify their networks to the two-way traffic of signs, targeting high speed Internet service and also offering telephony services.

On the other hand, customers have been used more and more video conference services, with specialized technology and products, supported by dedicated infrastructure for sign transmission and private networks.

The Internet network allows the possibility of videoconference, however the performance is very low because the information packages transit through World Wide Web without priority principles, resulting in delays and deficiency in images formation and sounds' reproduction.

The video phonic services related to the patent now requested, synthetically described through block diagrams presented by Picture 1, is based on the use of microphones and video cameras (analogue or digital) or any kind of cameras used in videoconference (1), which will serve for capturing the sounds and images, codification in an interface (2), and posterior generation of signs that will be transmitted to the far partner, where they will be decoded in an interface (2), and sent to a common TV set (3) by TV decoder (4).

Similarly to the emitter, the receiver must have the same equipment, in order to establish the connection between them and permit the two-way communication.

The integration of video and audio signs and the setting of videophone connection (including the call tone and the caller equipment identification) is accomplished by a interface (2) specially developed for this
function, which also permits the use of TV set for broadcasting station signing of commercial Television.

For the accomplishing of calls from the caller equipment to the receiver equipment, it will be used TCP–IP (Transmission Control Protocol - Internet Protocol), data communication protocols or another with similar function, through the generation of concerning destiny address by remote control equipment or other manual mechanism able to accomplish the same function.

The infrastructure (5) to serve as sign transmission way, will use one or more of the following systems: pay TV hybrid network, constituted by coaxial cables and optical fibers, metallic and optical fibers cables telephony operators plant, metallic and optical fibers cables of allowed telecommunication carriers network, radio frequencies including infrared zone or even electrical energy transmission plant.

Since the emitter equipment to the receiver equipment, the signs will run through central stations (6) equipped with routers and others peripherical equipment in charge to lead these signs to the destiny customer. According to the used infrastructure media network, it will be necessary the use of modulators and demodulators (modem’s) devices (7) in transition points.

Let us emphasize that the proposal system does not need neither specialized dedicated data circuits, equipment and operation nor microcomputer, enabling easy operation and low cost.
CLAIMS

1- Videophonia in large scale distinguished for permitting the interaction between people that are located far apart, through sounds and images, using microphones and video cameras (analogics or digitals) for capturing the sounds and images and generation of signs which will be transmitted and, by commercial TV sets for caption of generated signs in the other end of established circuit, in real time; and of a specially developed interface to integrate video, audio, caption signs entering calls signs, outlet calls address through communication datum protocols TCP-IP (Transmission Control Protocol-Internet Protocol), or another with similar function with identification of caller usuary, allowing or not the connection of TV set in the same interface for commercial channels caption, using as infrastructure for the sign transmission one or more of the following systems: the hybrid TV network by subscribing, formed by coaxial and optical fibers cables, coaxial and optical fibers cables telephony network of Telephony Operators, metallic or optical fibers cables networks of others Telecommunications Allowed Operators, radio frequencies including the infrared zone or even transmission on electric energy wires, and strategically located router equipments.
Picture 1.

Camera and microphone

Interface

TV set decoder

Central station

Modem

Modem

Modem

Modem

Related to an undetermined number of central stations

Interface

TV set decoder

TV set

Camera and microphone