

tiptel innovaphone 200



The Benefits of IP-Telephony

To maintain two separate infrastructures for voice and data communication doubles the cost of your network. By using the IP-Phone tiptel innovaphone 200 you can place your phone calls through an existing IP network. This means that voice and data processing may take place in one and the same IP-Network. Companies with an intranet for communication between remote offices and the main office may benefit substantially by using Voice-over-IP. The tiptel innovaphone 200 can be integrated in any IP-network and works with any standard-compliant Voice-over-IP Gateway and Gatekeeper, regardless of the network hardware (i.e. router, bridge, radio-LAN, Frame Relay, ATM).

The Scenario

The IP-Phone tiptel innovaphone 200 is ideally suited for all kinds of scenarios with a Voice-over-IP infrastructure (Voice-over-IP Gateway and Gatekeeper). The IP-Phone may complement a Voice-over-IP Gateway IP 400, i.e. the innovaphone Gatekeeper and VoIP-Gateway with four simultaneous voice channels. Thus, the tiptel innovaphone 200 is a comfortable telephony solution for smaller locations with up to 30 people. Alternatively, it may be combined with an IP 3000, innovaphone's 30-channel Gateway. innovaphone's product portfolio enables even companies with a strongly heterogeneous IT- and TK-

infrastructure to benefit from Voice-over-IP. innovaphone offers complete solutions, ranging from gateway to gatekeeper and IP-phone.

Product Features

Using the IP-Phone tiptel innovaphone 200, you can use your IP-network to make phone calls. The IP-Phone is connected to the IP-network via an Ethernet-interface. It may access your company network (intranet) and the public internet. Based on the H.323-standard, communication with all H.323-compliant systems is possible, e.g. with a PC using the Microsoft® program Netmeeting. In addition to the IP-functionality, the tiptel innovaphone 200 equals in all matters of traditional telephony comfort an ISDN-telephone. Unlike many other solutions, you don't have to press an "enter"-button in order to initiate a call (overlapped sending). Calls are set up extremely fast - in less than 100 ms, i.e. equalling the ISDN call set-up time. When a call is routed through the WAN, bandwidths and, as a result, voice quality can be optimised, by using the various compression algorithms offered by the tiptel innovaphone 200. The tiptel innovaphone 200 has a graphic display and alphanumeric keyboard for name and IP-address dialling. Traditional telephony features such as call hold, call transfer, call forwarding and call waiting are based on the H.450-standard, meaning that the tiptel innovaphone 200 is interoperable with all standard-compliant VoIP-Gateways and Gatekeepers. Additional features of the IP-Phone are hands free mode and open listening mode. Since the tiptel innovaphone 200 has an integrated Hub, only one Ethernet interface per user is necessary, enabling PC and telephone to be operated with a single Ethernet access. Therefore, cabling costs are reduced considerably. For Call Center or CTI applications, the tiptel innovaphone 200 may be combined with a headset.

Key benefits of the tiptel innovaphone 200

- excellent voice quality
- interoperability with other VoIP products
- "look-and-feel" of a normal telephone
- extremely fast call set-up (less than 100 ms)
- alphanumeric display and keyboard for name dialling
- optional headset
- integrated Hub, only one Ethernet access necessary for PC and IP-Phone
- en bloc or overlap dialling, no enter-button
- call transfer, call forwarding, call waiting, call hold
- three-party conference

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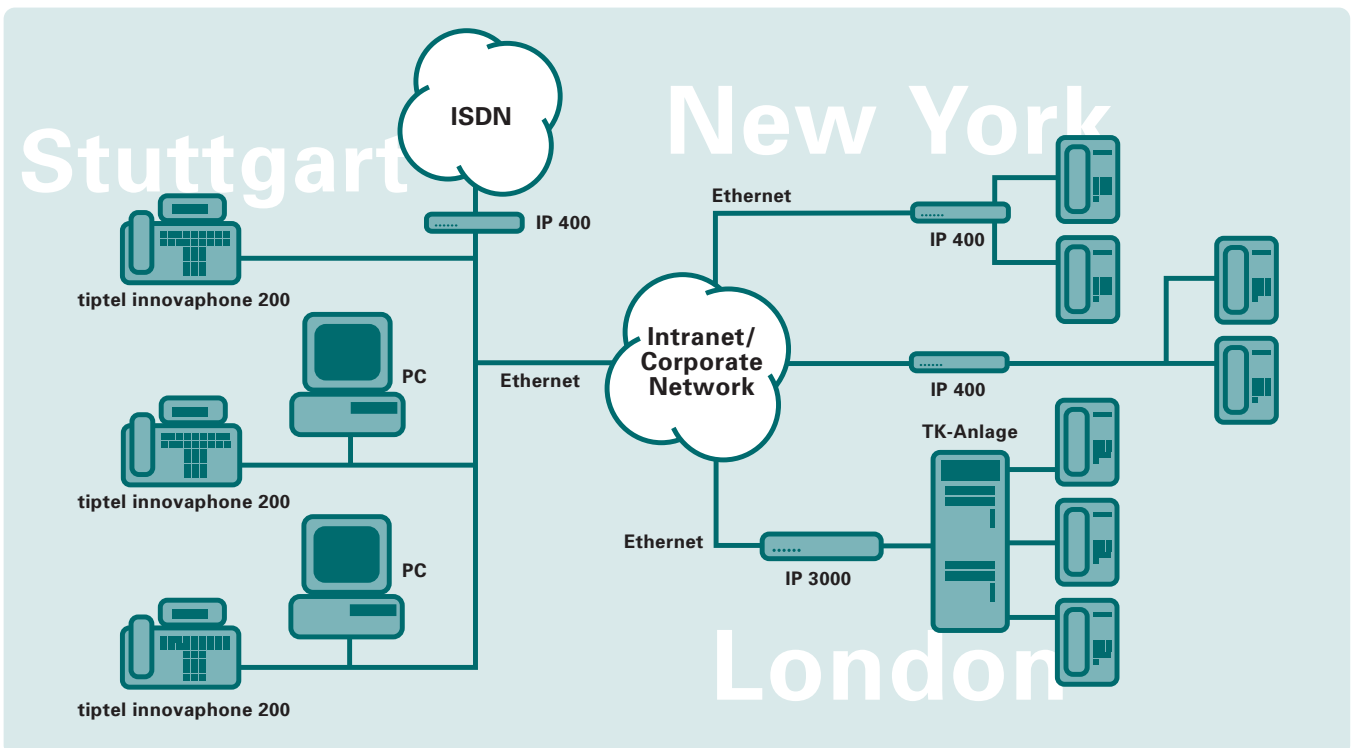
Voice Quality

Owing to special DSPs for voice compression and echo compensation, voice quality is excellent. The user can keep his/her phoning habits and does not even realize that the call is taking place via Voice-over-IP. Additionally, the tiptel innovaphone 200 offers clock synchronisation for perfect voice quality. Voice quality may be further optimised by the possibility of voice prioritisation.

Usability

The tiptel innovaphone 200 has a comfortable 128 x 64-pixel display. Thus, the user interface is clearly laid out for the user. The alphanumeric keyboard provides various dialling modes - dialling may be done by entering names, IP-addresses or the phone number. The number or name of the called party are shown on the display (CLI). The SNTP-Client receives time and date from the network. Due to the integrated autoconfiguration via DHCP-Client, the IP-address of the IP-Phone is assigned automatically, so that in a standard environment, no special configuration is necessary.

Scenario



IP-Phone tiptel innovaphone 200

Technical Specification

Interfaces

2 x Ethernet 10-BASE-T, integrated 2-Port Hub:
1 Uplink-Port for EthernetSwitch / Backbone
1 Port for a PC-Client

Hardware

Power Supply	External Power Supply In: 230 V AC +10% - 15% 47-62 Hz, 45 mA Out: 12V DC 450 mA Power supply via Ethernet interface optional
Memory	8 MB DRAM 2 MB, Flash Remote update possible
CPU	RISC CPU for protocol data processing Digital Signalling Processor (DSP) for voice data processing compression and coding of up to 2 concurrent calls
Temperature	Operating temperature: 0°C to +45°C 10% -90% relative humidity non-condensing storage temperature: - 10 to +70°C
Display	128 x 64 Pixel
Keyboard	alphanumeric and numeric keyboard

Protocols:

Internet	IP, TCP, UDP, RTP, DHCP, TFTP, ICMP, SNTP
Configuration	Telnet, HTTP, Java, SNMP (i.p)
Voice over IP	H.323, H.225, H.245, RTP, RTCP, RAS, H.450
Voice Coding	Voice Activity Detection (VAD) and Comfort Noise Generation (CNG) dynamic Jitter-Buffer G.711 A-law G.711my-law G.723.1 5.3 and 6.3 kbps G.729A
Echo compensation	G.165

Special Features

- "Look and Feel" of a traditional phone
- extremely fast call set-up (less than 100 ms)
- en bloc or overlap dialling
- Support of several MSN's
- Transmission of the calling number (CLI)
- Call Transfer/Call Forwarding/Call Hold/Call Waiting
- Ringing tone individually programmable regarding
volume and cadence
- Operation with external Gatekeeper (RAS Protocol)
- Voice Priorisation
- hands free mode, open listening mode
- interface for optional Headset
- SNTP-Client for local Time and Date display
- Alphanumeric Display and Keyboard for name and
IP-address dialling
- Redialling/dialling memory
- Memory for the last missed calls
- DTMF-signalling
- handsfree dialling
- three party conference
- Clock synchronisation for perfect voice quality

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