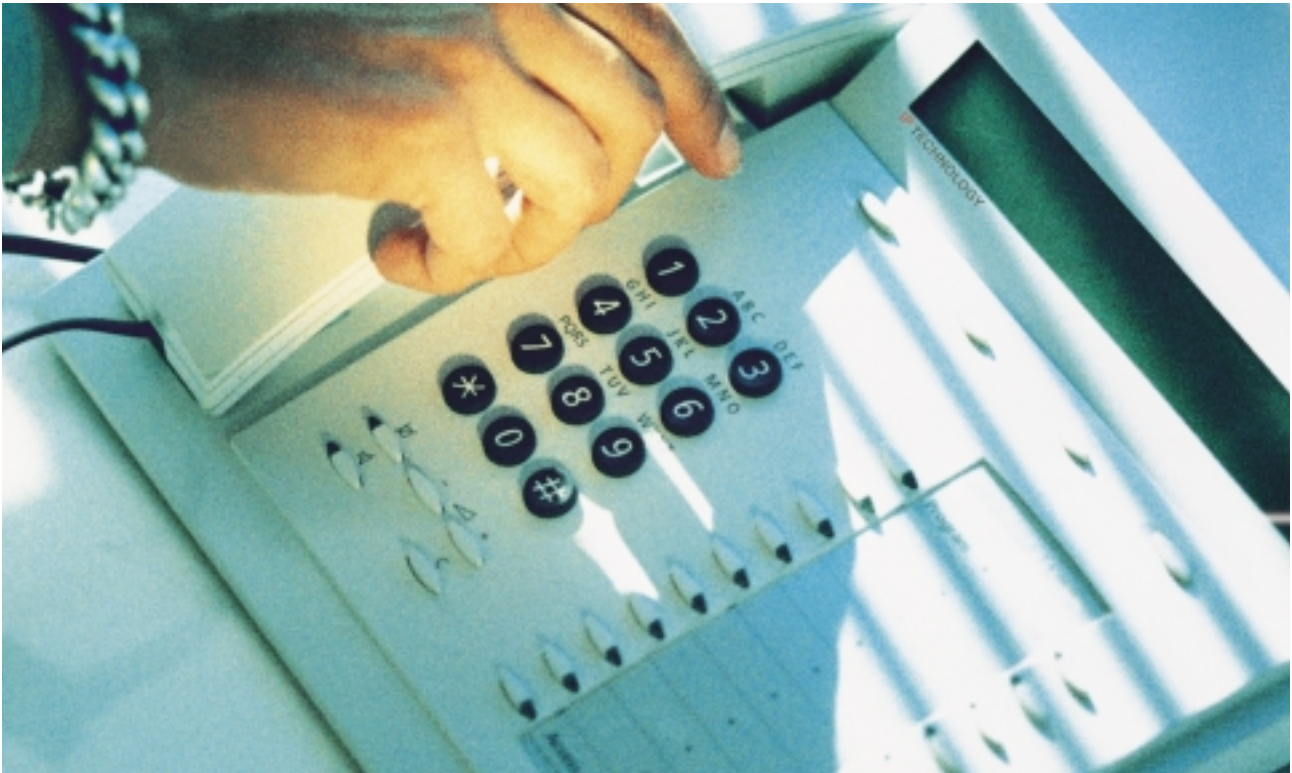


BusinessPhone IP Unit

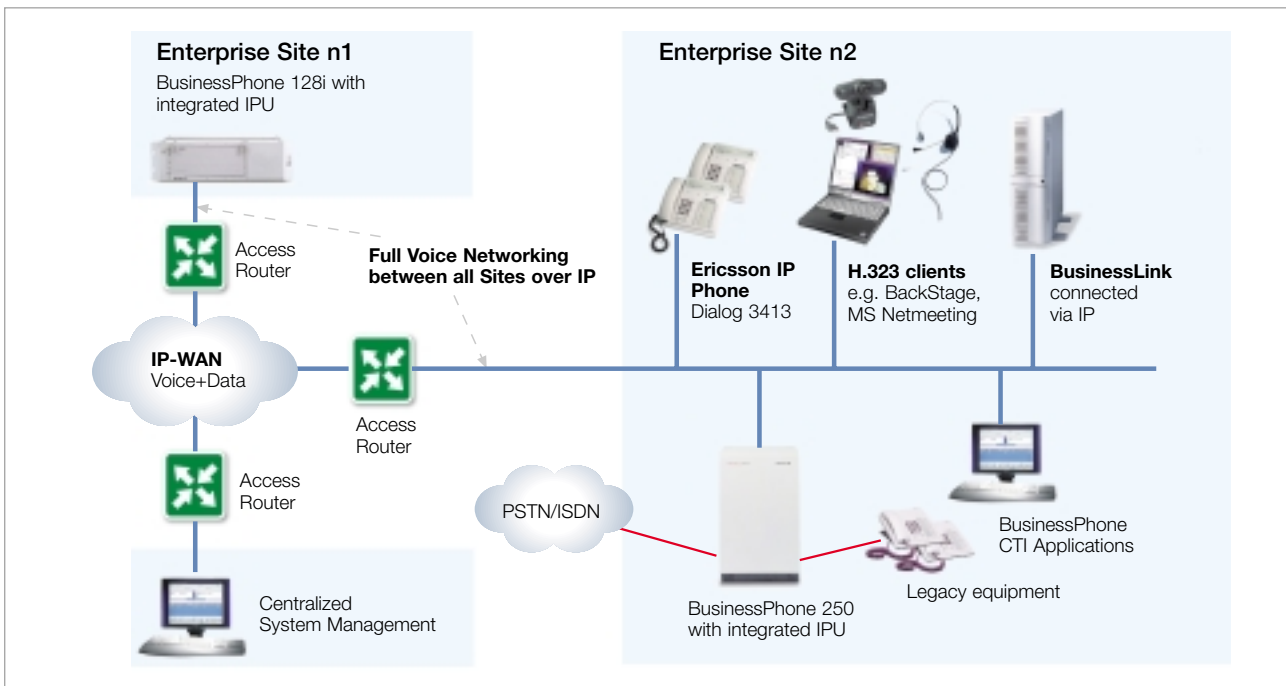


The IP Unit (IPU) is a plug-in board that makes Voice-over-IP (VoIP) an affordable, integrated and – above all – useful tool for small to medium sized enterprises. It enables existing BusinessPhone systems to offer IP-based, as well as traditional, connectivity.

Overview

The IPU makes VoIP an integral part of the BusinessPhone system. The immediate benefits are cost-effective connectivity and truly integrated computer-telephony applications over your corporate network. The BusinessPhone VoIP solution allows two or more BusinessPhone systems to be networked seamlessly together, or with other PBXs, including the Ericsson MD110.

Additionally BusinessPhone offers advanced IP telephony with the Ericsson IP clients: the Dialog 3413 and the BackStage PC client.



IP Telephony

To integrate IP extensions BusinessPhone uses a H.323 Gatekeeper. The implementation is based on the H.323 standard with an additional proprietary enhancement to support the Ericsson IP clients: the Dialog 3413, a fully featured IP telephone, and BackStage, a PC client.

Cost savings

One of the key benefits of the IPU is reduced call costs. Internal voice calls can be carried over your private local- or wide-area IP network (LAN or WAN). National and international call charges can be reduced dramatically, as a greater number of VoIP calls than traditional voice calls can be carried over the same facilities, thanks to compression. With the IPU, it's possible to reuse installed BusinessPhone infrastructure such as cabling, telephones – including analog, digital and DECT cordless models – as well as Computer Telephony (CT) applications.

Added functionality

With the IPU, all the functionality of the BusinessPhone system is maintained, and enhanced. Fully integrated voice and data communications mean new application possibilities are opened up that can enhance operational efficiency and improve customer service. For example, with BusinessPhone systems networked over a wide-area IP network, and connected to a BusinessLink CT application server, your staff can share applications as if they were working on their own office network, wherever they are located.

The integration of a H.323 Gatekeeper into the BusinessPhone system allows home and remote workers to be integrated into the organization's workflow. For example, with BackStage installed on any Windows 2000 based Multimedia PC, employees can have full access to the BusinessPhone system functionality while they are connected via a Remote Access Service to the organization's data network. They can access their work files, e-mail and voice mail, take part in conference calls and use other phone facilities with just a single PC.

Making IP connectivity an integral part of the BusinessPhone solution also opens up some interesting new possibilities in system management. With "Management over IP" it is possible to manage – that is, configure, administer – and maintain – the BusinessPhone system from anywhere over an IP connection.

Efficiency with quality

IP Telephony has big operational advantages. By using a unified network for voice and data, you only have one set of wiring to consider. And when it comes to adding, moving and removing users, it's just a question of plugging in and unplugging equipment – configuration is simple. This efficiency is not gained at the expense of quality. In the event of a failure in the IP network, or if call quality is insufficient, ongoing Voice-over-IP calls are handed over to an alternative non-IP route. The IPU also supports the "Type of Service" (ToS) field in the IP header to help maintain high quality of service.

Technical data

Format

- plug-in board with own 48MHz processor
- removable compact flash disk containing software and firmware.

Interfaces

- Ethernet 10/100baseT

Protocols

- IPv4
- vendor-specific OAM protocols
- BOOTP
- coding of speech packets according to RTP
- DHCP
- TCP, UDP
- FTP (File Transfer Protocol)
- NTP (Network Time Protocol)
- H.323 v3
- H.225, H.245
- BusinessPhone proprietary IP GateWay (BPIP GW)

Voice support

- up to 16 parallel calls per board
- voice coder:
 - G.711
 - G.723.1
 - G.729a
- silence suppression with comfort noise insertion

- up to 64ms G.168 echo cancellation.
- support of end-to-end DTMF

Quality of Service

- queuing prioritization, support of Type of Service (ToS)

IP extensions

- support of up to 128 IP extensions per board via an integrated H.323 Gatekeeper
 - Ericsson IP phone, Dialog 3413
 - BackStage
 - any IP or PC phone conforming to H.323 standard

Networking

- vendor-specific call signaling protocol, supporting full voice networking functionality including QSIG between two or more BusinessPhone systems over IP
- Least Cost Routing and Expensive Route Warning
- full support as for any other BusinessPhone route

Network redundancy

- alternative route selection in the event of LAN access failure or IP congestion during call setup
- hand-over to circuit-switched network in the event of LAN access failure or IP congestion during conversation

CT and maintenance link

- connection of BusinessLink Server to the BusinessPhone system via IP
- connection of the BusinessPhone Management Suite to the BusinessPhone system via IP
- connection of any traditional application, e.g. Call Center Supervisor, Call accounting applications to the BusinessPhone system utilizing VCom, a software based Com driver running on Windows 98, NT or 2000

Configuration Options

- flexible utilizing of voice channels, voice channels can be used for
 - IP extensions
 - IP trunks for networking purpose
- fully remote soft- and firmware upgradable
- remote configuration and maintenance

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