

TeleSoft International

Protocols for Developers



Proven advanced starting points

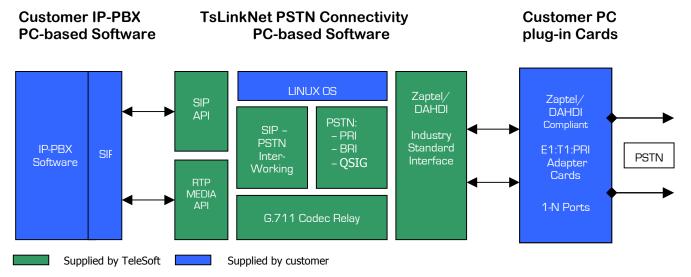
TsLinkNet - IP-PBX Voice to PSTN Connectivity Gateway

How to add revenue to your product line - without investing in software R & D.

IP-PBXs enable companies of any size to take advantage of the wide availability of broadband connections to offer low cost VoIP-based (Voice over Internet Protocol) calling plans. However, in order to connect VoIP calls to the millions of existing PSTN-based (Public Switched Telephone Network) telephones, switches and PBXs, it is necessary to provide a mechanism that converts VoIP signaling to PSTN signaling.

TeleSoft's TsLinkNet IP-PBX Gateway solution provides this conversion, and enables OEMs, manufacturers and suppliers of IP-PBXs and telephony cards to easily add PSTN connectivity to their SIP-based IP-PBX products. TsLinkNet incorporates the key features necessary to connect SIP-based VoIP calls to the PSTN in most countries in the world. Because the TsLinkNet API consists of industry standard IETF SIP messages, it interfaces directly to existing SIP-enabled IP-PBXs, avoiding extra cost, delay and risk.

TsLinkNet runs alongside the IP-PBX software on the same PC/server platform and under the same Linux operating system as for the IP-PBX. TsLinkNet is easy to install with a standards-based SIP API that interfaces to the IP-PBX SIP without requiring any hardware connections, thus eliminating the need for, or usage of, Ethernet ports. This is a purely software socket connection internal to the host PC/server and does not involve the host network interface card.



TsLinkNet Functional Block Diagram

TsLinkNet IP-PBX Gateway is a software solution that takes the packetized SIP messages from the IP-PBX and translates them to the TDM (Time Division Multiplexed) messages used on the worldwide digital and analog PSTN networks. While most applications will require PRI ISDN other options include support for BRI, QSIG (the standard interface for PBX-to-PBX communications), T1 Robbed-Bit Signaling (used mainly in N. America as an alternative to ISDN) and E1 CAS R2 (widely used in S. America and Asia where ISDN is not deployed).

TsLinkNet takes advantage of existing proven TeleSoft TsLink3 stacks to provide a highly flexible solution that can be configured for virtually any telephone network in the world thus enabling manufacturers and suppliers to market and deploy their products on a worldwide basis.

Features

- Robust high volume call operation
- ♦ Low CPU usage
- ♦ Best-in-class voice quality
- ♦ Worldwide PSTN connectivity
- ♦ Runs alongside IP-PBX on PC(s) & Linux
- ♦ Standards-based SIP API

- ♦ ISDN PRI & BRI worldwide signaling stacks
- QSIG support for PBX-PBX communications
- ♦ BRI ISDN worldwide signaling (coming)
- No Ethernet ports required
- ♦ Works with off-the-shelf PRI/T1/E1 cards
- ♦ Interfaces to standard Zaptel/DAHDI driver

Applications

TsLinkNet is designed for any IP-PBX or similar device including:

- Asterisk IP PBX
- ♦ Freeswitch IP PBX
- ♦ Proprietary IP-PBX Systems
- ♦ IP-PBX to PBX Protocol Adapters

- ♦ Enterprise Gateways
- ♦ Telco/VoIP Gateways
- ♦ Hybrid PBXs
- ♦ IP-PSTN

TsLinkNet is standards-based and conforms to the IETF, ITU-T, ANSI and ECMA standards

TsLinkNet SIP API includes support for:

- ◆ INVITE, BYE, ACK, OPTIONS method per RFC 3261
- ♦ SDP Offer/Answer support per RFC 3264
- Hold, Call Forwarding, Caller ID and Call Waiting Supplementary Services

TsLinkNet is available with these TsLink3 ITU-T PRI & BRI and ECMA QSIG stacks:

- QSIG PBX PBX
- ◆ ISDN Worldwide ISDN switch variants
 - N. America NI-2, Lucent 5ESS, 4ESS & Nortel DMS100/250 PRI
 - N. America NI-1, Lucent 5ESS, Nortel DMS100/250 BRI
 - ETSI EuroISDN PRI & BRI
 - Japan INSnet PRI & BRI

TsLinkNet Interfaces:

- Operating System Linux
- Zaptel/DAHDI Interface connects to Zaptel/DAHDI driver & Zaptel/DAHDI compatible T1/E1/PRI hardware
- SIP API standards-based API that connects to the IP-PBX SIP interface

TsLinkNet provides diagnostic logging:

◆ Debugging & auditing - run-time logging of messages & events

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About TeleSoft International

TeleSoft International, Inc., is an industry-leading, US-based provider of field-proven, scalable, standards-based protocol stacks for developers. We specialize in telecom applications, licensing source code stacks to OEMs and ODMs worldwide for VoIP, ISDN, Q.931, Q.921, QSIG, Supplementary Services, ML-PPP, PPP, Frame Relay, T1 RBS, E1 CAS R2, and X.25.

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