



# VoIP Protocol Suite

Product Data Sheet

## Introduction

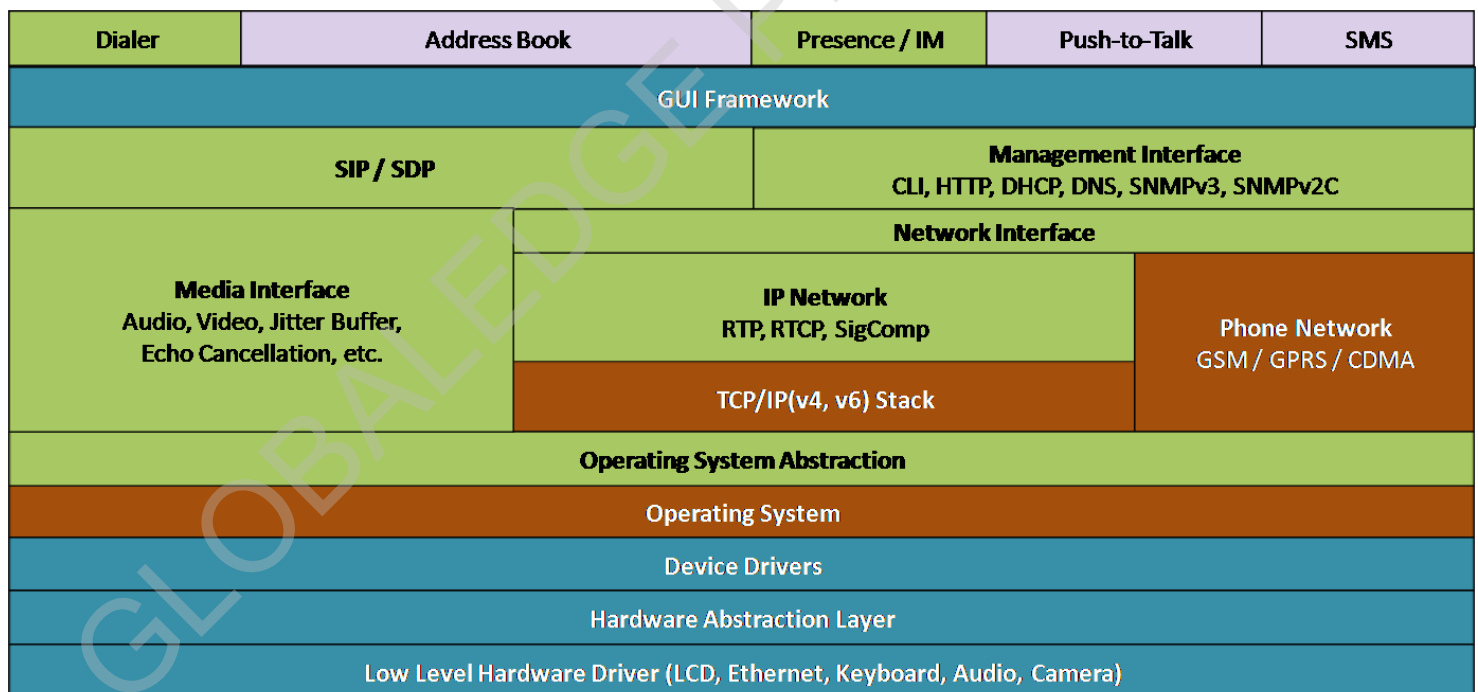
VoIP (Voice over Internet Protocol) is simply the transmission of voice traffic over IP-based networks. The Internet Protocol (IP) was originally designed for data networking. The success of IP in becoming a world standard for data networking has led to its adoption to voice networking.

VoIP has become popular largely because it allows you to make and receive phone calls over the Internet and IP networks for much cheaper than with the traditional landline phone network. It also makes your communication experience much richer and nicer with a series of enhanced features and extended possibilities.

## Description

GlobalEdge has strong competence in providing ready to deploy software components that are used in developing VoIP solutions for integration into products like VoIP Phones, Broadband Modems, Gateways and Set Top Box.

We bring in-depth experience in VoIP, Wired and Wireless Networking, Provisioning and Management protocol development required for providing a complete VoIP solution. By integrating the IP available from GlobalEdge on the customers platform we have not only been able to demonstrate a working prototype faster but have also been able to help the customer to successfully complete field trials and reduce their time to market.



Available Components
  Customer Supplied or GlobalEdge Services
  3<sup>rd</sup> Party Components
  Roadmap

## Key Features

- Voice Call Handling
- Authentication
- Multiple Codec Support
- Video Conferencing Support
- Class 5 Features
- Instant Messaging and Presence
- Multiple UI's
- DHCP and DNS Support
- CallerID
- Standards Compliant
- Modular Architecture
- Light weight stack for deeply embedded devices
- Operating System Independent
- Interoperability tested with VoIP products and service providers

- P-Headers (RFC 3455)
- AKA-MD5 for Authentication (RFC 3310)
- IPSec Security Association - RFC 3329
- PRACK, UPDATE, INFO - RFC 3262 & 3311 & 2976
- STUN (RFC 5389)

## Media Transfer

- RTP and RTCP (RFC 3550, 3551 Compliant)

## Management Interfaces

- CLI, HTTP, SNMP, DHCP, DNS

## Codecs and DSP Algorithms

- G.711, G.729, G.723.1 Speech Codecs
- G.168 echo cancellation
- H.264 Video Decoder

## Quality of Service

- PacketCable DQoS/ RSVP+ (PKT-SP-DQOS-I02-000818)
- QoS Layer 2 implementation (GESL proprietary implementation)

## Security

- IP Security (RFC 2401, 2402, 2403, 2404, 2405, 2406, 2410, 2411, 2451, 3602 compliant)
- Kerberos
- PKI (RFC 4556 compliant)
- Cryptographic algorithms (AES, DES, 3DES)
- Secure provisioning using SNMPv3

## Interoperability

### IP Phones

- SJPhone,
- eyebeam
- Polycom
- Mercura IMS communicator
- Grandstream

### Video Gateway

- ADI

## Specifications

### Signaling

#### SIP / IMS

- 3GPP TS 23.228 ,TS 24.229,TS 24.228, TS 23.141
- Session Initiation Protocol (RFC 3261)
- Locating SIP Servers (RFC 3263)
- Session Description Protocol (RFC 4566)
- Offer/Answer Model with the Session Description Protocol (RFC 3264)
- SIP Replaces header (RFC 3891)
- SIP Referred-By mechanism (RFC 3892)
- SIP Extensions for Event state publications (RFC 3903)
- Early session disposition type for SIP (RFC 3959)
- SIP Privacy mechanism (RFC 3323)
- Asserted Identity (RFC 3325)
- SIP REFER method (RFC 3515)
- Registration Specific Extensions (RFC 3680, RFC 3327 and 3608)
- QoS Resource Reservation & Precondition (RFC 3312)

## Specifications Contd.

### SIP Servers

- Siemens
- Asterisk
- OpenIMS core
- OpenSER
- Trixbox

### Platform support

- Processors: MIPS, x86, ARM9
- Operating Systems: VxWorks, Linux, ThreadX

## Applications

- Dialer
- Address Book
- Presence/IM
- Browser

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