User Media Gateway µSBC with 4 gigabit Ethernet ports

Features

- 4x gigabit Ethernet network ports
- Register up to 10 SIP accounts
- Survival feature - SAS*

* *Stand Alone Survivability - Optional items are available at an additional cost.*

Applications

- VoIP telephony carriers
- Corporate environments

Overview

Developed for companies that operate with SIP connections and VoIP carriers, the µSBC guarantees a secure connection between the local network and the VoIP carrier. It secures your SIP network through data encryption, protecting communication sessions against third party interception. Security features such as encryption and topology hiding are available on all calls simultaneously.

Routing and customer loyalty plan

Obtain enhanced control over your telephony costs by configuring routing rules according to phone number prefixes and/or carrier loyalty attributes. You can also sort routes by priority, as well as modify the caller and called numbers when necessary.

With these features it is possible to have a wide variety of combinations, catering to multiple needs besides savings.

Table of simultaneous calls

The µSBC allows you to have up to 28 simultaneous SIP-to-SIP calls with all SBC functions enabled.

The table below shows the number of channels available for use depending on the codec to be used on calls:

Maximum number of simultaneous µSBC calls		
With G.711 ↔ G.711 codec	With G.729 ↔ G.711 codec	With G.729 ↔ G.729 codec
28	19	14

Note: *The use of the G.729 codec reduces the number of possible simultaneous calls. Refer to your product manual or contact our business consultants for more information*

Route failover

The µSBC offers route failover to avoid downtime in call processing in case of a VoIP server failure.

The failover function is implemented by using routes along with VoIP server monitoring through the Keep Alive feature.

When the Keep Alive function is active, the µSBC sends OPTIONS messages to the VoIP server in order to monitor its status. When this server does not respond to the OPTIONS command, the µSBC then ignores the route through which this server is being used and searches for another compatible route.

Survival - SAS

The survival capability (Stand-Alone Survivability, SAS) ensures the continuity of telephone communications in case the IP PBX system becomes unavailable. When the µSBC has an installed SAS license applied, it assumes the basic functions of the IP PBX system:

- Making and receiving external calls.
- Making calls to extensions.
- Transferring calls.

This way, you don't have to wait for the IP PBX to be available again to restore your telephone communications.

Technical specifications

Operation Interfaces

- Configuration, monitoring, administration and diagnostics via Web Interface
- Module for diagnostics via Interface Web
- User Interface Web access control
- Packet capture via Web Interface

System status

- System status via Interface Web
- Status of trunks and channels via Interface Web
- SNMP support

Supported codecs

- G.711 A-law and µ-law, native to the system, for all interfaces
- G.729A, G.723.1 and G.726

VoIP features

- Handling of destination number (to) and source number (from)
- Destination monitoring with Keep Alive (sends UDP packets to the router to indicate that the port is in use, without affecting bandwidth)
- Selection of DTMF sending mode: In band, Out band - RTP (RFC 2833) or Out band - SIP Info
- Addition, removal and retransmission of headers
- Transcoding (conversion between G.711, G.729, G723.1 and G726 codecs)

QoS

- DiffServ - RFC 4594
- VLAN Tagging

Call Routing

- Configuration of alternative routes (automatic overflow and fallback)
- Route fidelization (ability to change the destination number)
- LCR call routing - lowest cost routing
- Routing based on the source number, destination number, time of day, and priority
- Route profile
- Up to 120 simultaneous records (Resource shared between survival and Records Authorization)

Survival - SAS

- Forwarding of incoming and outgoing calls
- Transfer with and without consultation
- Automatic proxy fallback
- Digit manipulation in survival

NAT Transversal

- It can be used to interconnect different networks
- External IP configuration
- STUN

Other features

- Provisioning (exporting and importing configurations)
- Zero-touch provisioning
- Remote terminal with advanced CLI (Command Line Interface)
- TR-069 support
- Support ITU-T G.165 and G.168 standards
- Acoustic signaling treatment performed by hardware through DSPs
- Automatic fax tone detection (2100Hz) automatically enabling echo cancellation

Call Register

- Internal firewall configurable via Web Interface
- CDR generation (customizable CSV format)
- Channel use monitoring
- Call counters per channel
- Option for download in CSV format (compatible with Microsoft Excel)
- Automatic export via FTP
- Use of the RADIUS protocol to perform Accounting (ticketing)
- VLAN and VPN support

Security

- Access via HTTP or HTTPS protocol
- Fraud prevention: call blocking by destination and origin
- DoS / DDoS Protection
- Hiding network topology
- SIP TLS and SRTP protocols (SDES, DTLS and AES)
- Access control - ACL (whitelist and blacklist)
- Protection against malformed packages
- Rogue RTP protection
- Register authorization * (separately licensed item)

Call Admission Control

- Based on local resources
- Call rate limiting QoS (Quality Control)

Interworking

- Fax interworking (T.38 with fallback to G.711)
- DTMF translation: RFC 2833, SIP INFO and in-band
- RTP conversion between UDP, TCP and SRTP (SDES & DTLS)
- SIP conversion between UDP, TCP, and TLS
- SIP Trunking

Warranties and Certifications

- Total warranty (legal + Khomp warranty): 3 years
  - Legal warranty: 90 days
  - Khomp warranty: 2 years and 9 months
- ISO 9001 certified industry

Physical Characteristics

- Input: 110–240 VAC, 50/60 Hz
- Maximum power consumption: 6,74 W
- 4x gigabit network ports (10/100/1000 Mbps)
- Dimensions: 8,1" x 1,6" x 4,01"
- Approximate weight (without packaging): 1,36 lb

Key features of the UMG line

- Web Interface for device monitoring, configuration, diagnostics, and administration
- Web Interface access control with username and password authentication
- Remote username and password update
- Different user profiles can be created in the system
- Allows system management via computer through the ETH interface
- The TCP/UDP management port can be changed for system security
- Supports SSH for local management
- The firmware can be updated via a local or remote connection, maintaining system settings
- Intelligent routing
- Route failover
- Support for telephony interfaces: E1/T1***** (R2 and ISDN), FXS, FXO, and GSM (according to model)
- Support for SIP signaling
- Codecs: G.711 (a-law and μ-law), G.729A, G.723, and G.726
- Echo cancellation
- Customizable CDR
- Log generation for diagnostics
- SNMP support
- Clean design and easy installation
- Up to 50 route registrations
- Up to 10 VoIP (SIP) account registrations
- Physical switching between FXS-FXO in case of power failure, through the 2FXS/2FXO module
- Has two 10/100 Mbps Ethernet ports
- Supports NTP, DHCP and NAT protocols
- The system features silence suppression, CNG, and VAD
- Operates with dynamic jitter buffer

***** *T1 is available only from version 2.2.1.*

Product images

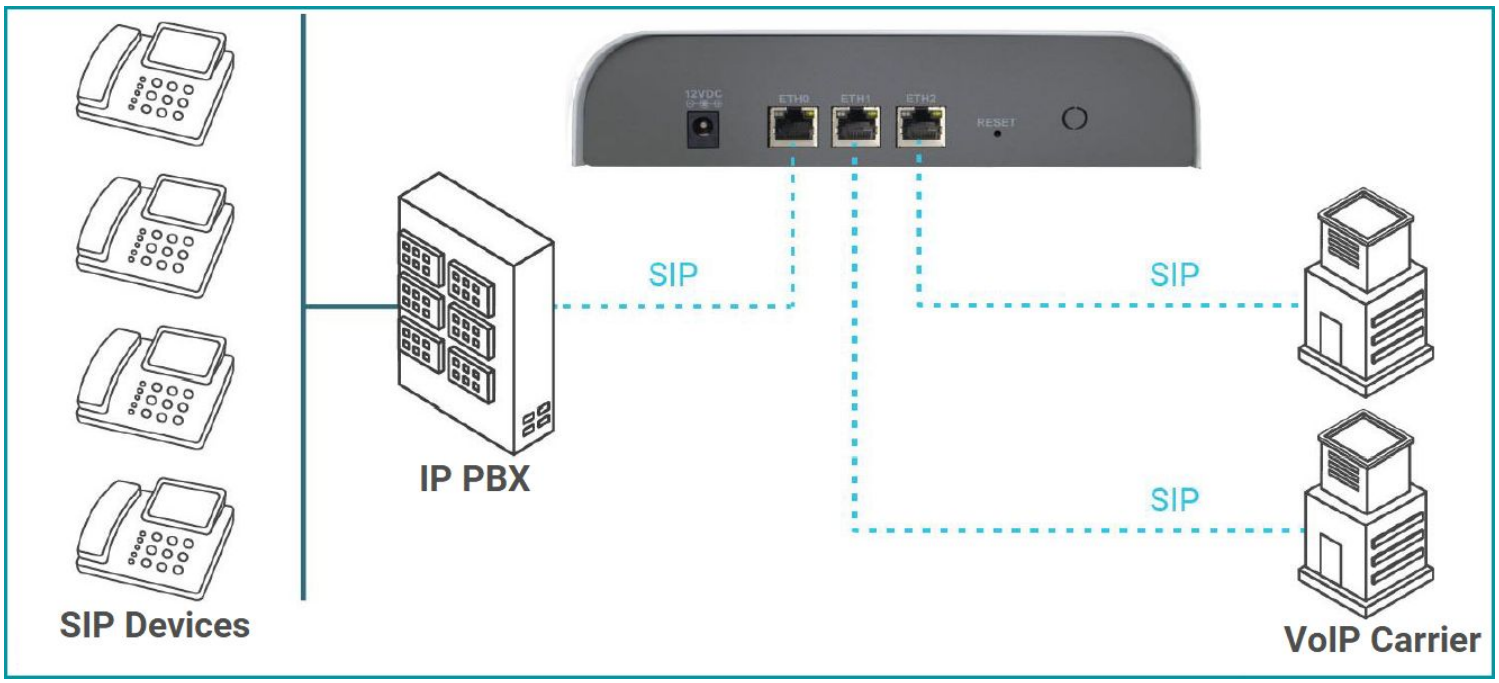
Front view

Rear view

Applications models

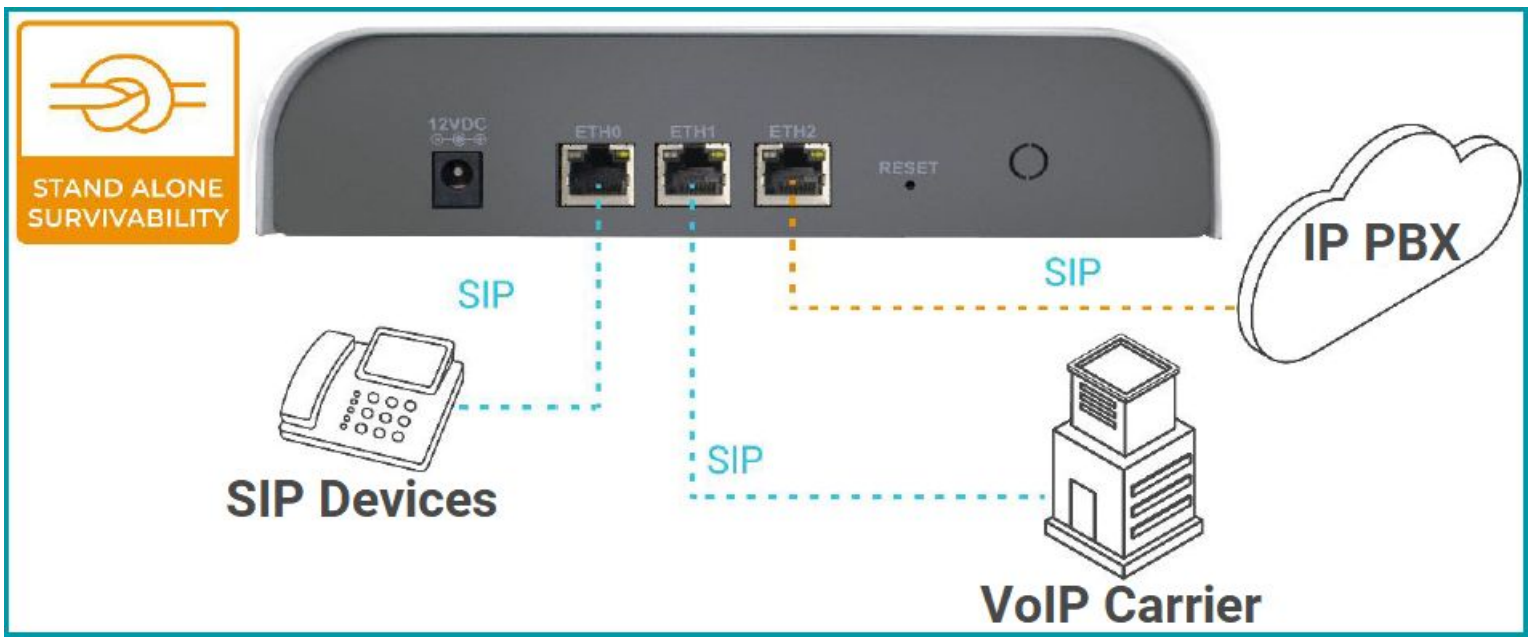
1 - Connection of IP PBX system with VoIP telephony carriers

In this scenario, the µSBC connects the local IP PBX server with two VoIP telephony carriers, with all security features available.



2 - µSBC with Survival feature to ensure local communications availability

In this scenario, when the connection between the local network and the cloud-based IP PBX system fails, the µSBC with SAS (Stand Alone Survivability) feature starts using a VoIP carrier as contingency, ensuring calls can be made and received until the connection is reestablished.



KHOMP
Rua Joe Collaço, 253 - Florianópolis, SC
+55 (48) 3722.2900
comercial@khomp.com