High-performance server and integrated modular gateway

Features

- This solution integrates a server and a modular voice gateway in a single device
- Server with three high-performance processor options for embedding custom platforms and applications
- The voice gateway can optionally have all telephony interfaces: E1/T1, FXS, FXO, and GSM

Aplicações

- IP PBX Installation
- Platform installation for the development of unified communication solutions
- Custom applications with telephony interfaces
- Firewall

Overview

The UMG Server Modular PRO is an appliance composed of a voice gateway, which can be assembled using different telephony interfaces, and a server with a dedicated motherboard for the installation of any Windows-, Linux-, or FreeBSD-based platform.

This appliance allows you to design a complete solution, such as a Unified Communications Center or a Telephone Exchange with call routing, and you can also create firewall solutions, with the option to configure alarm triggers per IP call or cell phone number. All this comes in a single 1U device, and you can also customize the enclosure with a custom logo that is imprinted in the Khomp factory (please check the terms)

Flexibility for your business

The UMG Server Modular PRO can include several storage and processing options, as well as the telephony interfaces that best fit your business application. There are three telephony interface modules available which support the E1/T1, FXS, FXO and 2G/3G GSM technologies, RAM memory up to 16GB, and four SATA ports for connecting 2.5” SSDs or HDDs.

User-Friendly Web Interface

The UMG Modular 300 gateway embedded in the appliance has a friendly web interface for system monitoring, configuration, diagnosis, and management. This allows for time optimization and greater autonomy for the user. The UMG can be remotely accessed, which allows you to manage multiple UMG gateways, if applicable.

A processor that is exclusive to your solution

All signal convergence and call routing is processed by the voice gateway embedded in the UMG Server Modular, thus freeing the motherboard processing for the exclusive use of the operating system and installed application.

Route Faloiver

The UMG device offers route failover to avoid call processing downtime in case of SIP server failures. The failover function is implemented using routes along with SIP server monitoring through the Keep Alive feature. When Keep Alive is enabled, the UMG sends OPTIONS messages to the SIP server in order to monitor its status. When the SIP server does not respond to an OPTIONS message, the UMG then ignores the route where this server is and searches for another compatible route.

Technical specifications

Server hardware specifications

- Portwell WADE-8017 Mini-ITX motherboard
- Intel Core i3, i5, or i7 processors
- 4 GB DDR4 RAM Memory (expandable to 16 GB)
- 1x 2.5” 120 GB SSD (supports up to 4x 2.15” SATA disks)

Optional Items *

- Power supply options:
  - 200 W DC full range redundant power supply
  - 150 W single power supply
- 1x RJ45 gigabit Ethernet 10/100/1000 Mbps for a direct connection to the motherboard
- RAM memory expansion options up to 4 GB, 8 GB, 10 GB, and 16 GB
- Storage expansion (SSD and HDD options to choose from depending on the availability)
- Supports set of storage disks with a maximum of 2 TB

VoIP

- Allows adding of up to 10 VoIP accounts with or without registration
- Supported CODECs
  - G.711 (A-law and μ-law)
  - G.711 a-law
- Network port selection for SIP protocol and RTP for each VoIP account
- SIP and RTP using the TCP protocol
- Keep Alive support (SIP OPTIONS)
- Option to ignore source port
- Use of a destination number through URI
- Q.850 Cause Report
- DTMF sending mode selection:
  - In band
  - Out band - RTP (RFC 2833)
  - Out band - SIP Info
- Supports fax T.38 and pass-through
- Echo canceling:
  - Standard filter and dual filter
  - Tail-length adjustment up to 128 ms

E1/T1 telephony module specifications

- 1 Link
- Allows you to select the number of channels to match the telephony carrier
- ISDN or R2 signaling (R2 only for E1)
- Connector options:
    - BNC Coaxial - Electrical resistance: 75 Ohms
    - RJ45 - Electrical resistance: 120 Ohms
- Clock setting
- Supports error checking method (CRC-4)
- Channel allocation algorithm selection (first free or balanced channel)
- Channel allocation sorting
- ISDN and R2 signaling advanced settings
- Collect call blocking through double answering in R2 signaling
- Collect call blocking through signaling in ISDN
- Limit of 1 E1/T1 Link per media gateway

4 FXS telephony module specifications

- 4 FXS channels (4x RJ11)
- It has the same features as the FXS module

8 FXS telephony module specifications

- 8 channels per module
- 2x RJ45: 4 FXS channels per connector
- Ring voltage 50 ~ 70Vpp / 25Hz
- Extension numbering plan
- Dialing time-out setup
- End-of-dial marker
- Known numbers registering (Dial Plan)
- Ring cadence configuration Distinctive ring
- Internal and external ring tone setting
- Caller ID generation through DTMF or FSK
- Flash validation time
- Operations available at extensions:
    - Call on-hold
    - Assisted transfer
    - Blind transfer
    - Alternate Call Answering

GSM telephony module specifications

- 2 channels per module. Supports 2x SIM cards per module
- Supports SIM cards from different carriers in the same module
- Available band:
    - 2G Quad-band: 850/900/1800/1900 MHz
    - 3G Penta-band (optional):* 850/900/1700/1900/2100 MHz with fallback to 2G quad-band
- SIM Card size: mini SIM (2FF)
- SMS receipt, confirmation, and error notifications
- API for SMS sending
- Ability to control the minutes spent per SIM card group
- Cyclic allocation of GSM channels

FXO telephony module specifications

- 4 channels per module
- 4x RJ11
- Minimum Ring sensor: 13.5Vrms @ 13 ~ 68Hz
- Caller ID Detection
- Line impedance
- Collect call blocking

Smart modular routing

- Route selection by prefix
- Route selection by regular expressions
- Modification of destination and source number
- Imposing of the codec and the destination profile along the route with VoIP output
- Route failover
- Use of the “Display name” as the caller ID
- Registration of up to 50 routes
- The gateway supports calls between VoIP channels (SBC)**

*** The SBC feature requires the purchase of an additional license.*

Other features

- Simplified web configuration
- Single step initial configuration wizard
- Diagnostics interface
- Dashboard with channel status and call statistics
- Line volume setting
- DTMF suppression
- Customizable CDR
- SNMP Support
- Log recording on a remote server or local site
- FTP access

2FXS/2FXO Bypass telephony module specifications

- 2 FXS channels and 2 FXO channels
- 4 x RJ11: 2 FXS - 2 FXO
- Bypass: toggles between the FXO and FXS channels in the case of power failure
- They have the same technical specifications as the FXS and FXO modules

Security

- Password-protected access to the web interface
- Access via HTTP or HTTPS protocol
- ACL - Access Control List for the web interface
- Network topology hiding for VoIP/VoIP routing (SBC)

Compatibility

- Windows
- Linux (kernel version 3.10 or higher)
- FreeBSD**
- pfSense**

*** Does not support use of the display*

Physical characteristics

- Redundant AC power supply (standard):
  - Input: 100 V ~ 240 V, 50/60Hz
  - Maximum power consumption: 120 W
- Simple power supply (optional):*
  - Input: 100 V ~ 240 V, 50/60 Hz
  - Maximum power consumption: 150 W
- Redundant DC power supply (optional):*
  - Input: -40 VDC to -72 VDC
  - Maximum power consumption: 200 W
- 2x RJ45 gigabit Ethernet 10/100/1000 Mbps
- 1x RJ45 gigabit Ethernet 10/100/1000 Mbps (optional)
- 3 slots that may contain E1/T1, FXS, FXO or GSM channels according to the modularity
- 3x USB 2.0 (1 in the front / 2 in the back)
- 1x VGA port
- Display size: 27,3x15 mm.
- Power button
- Reset button (in the back)
- Equipment status LED
- Telephony Module status LED
- Disk status LED
- Error warning LED
- Appliance size: 437.80x44.45x450 mm
- Approximate weight: 7.8 Kg (without packaging)
- Standard 1U module for 19-inch racks
- Extender for fixing the back of racks up to 570 mm

** Optional items incur additional costs.*

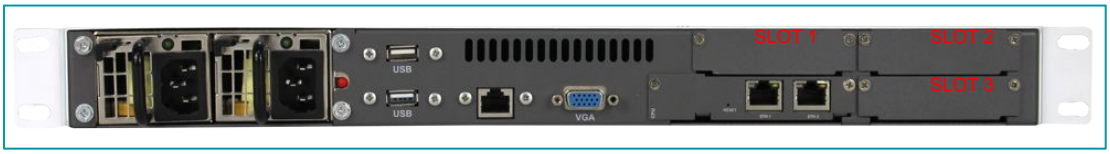
Warranties and certifications

- Total warranty (legal + Khomp): 1 year
- Legal warranty: 90 days
- Khomp warranty: 9 months
- ISO 9001 certified industry

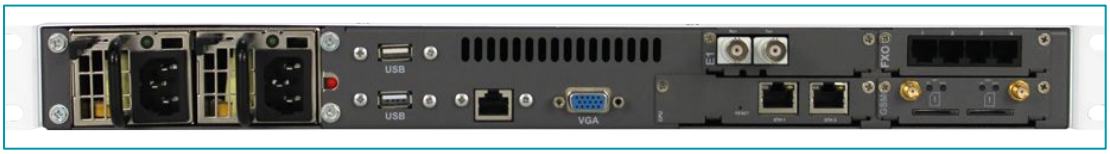
** Optional items at additional cost.*

*** The SBC feature requires the purchase of an additional license.*

Product images

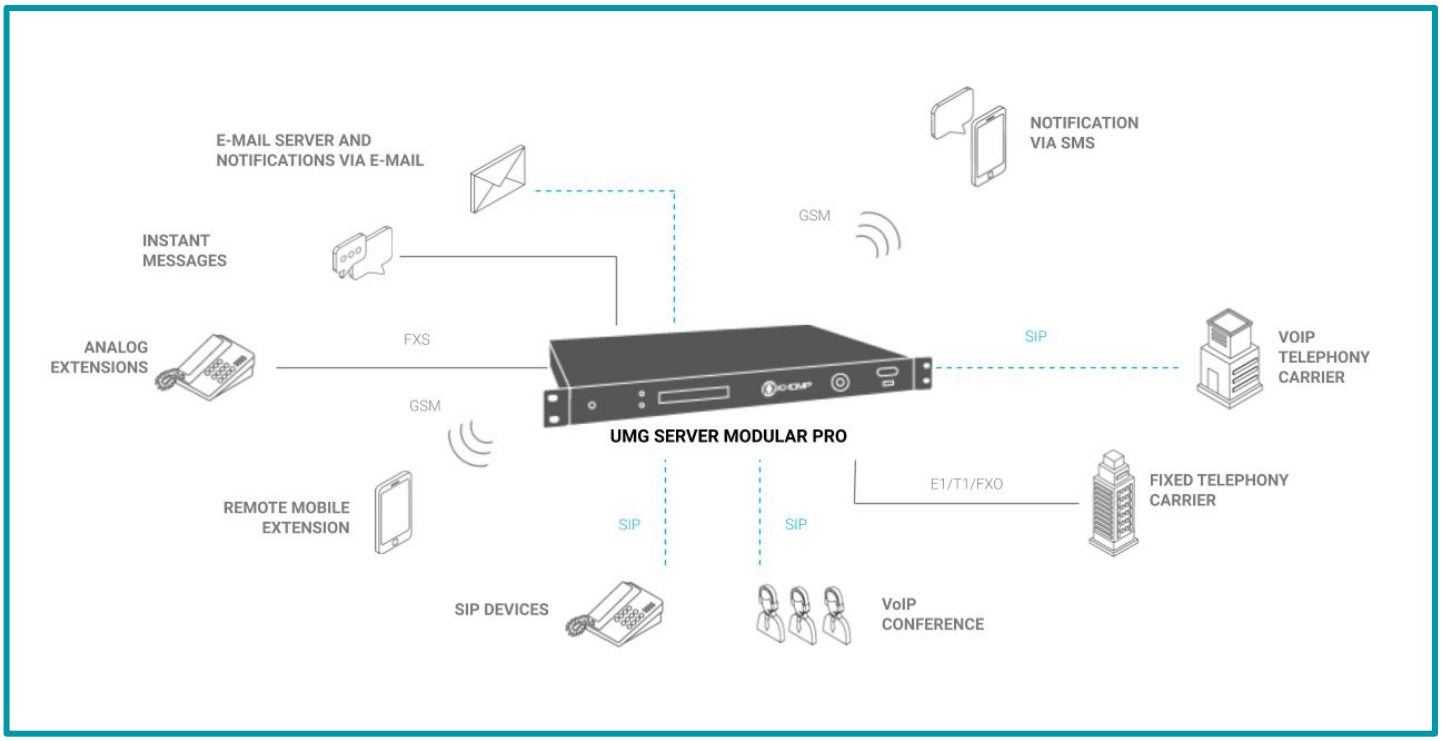


Rear view



Rear view - with 1 E1, 4 FXO and 2 GSM

Aplication model



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