

Server with integrated modular gateway



Main characteristics

- Modular voice server and gateway integrated in a single device
- Server with processor to board custom platforms and applications
- Voice Gateway with E1/T1 telephony interfaces
- Gateway supporting cross-channel VoIP calls (SBC)*

Applications

- IP PBX Installation
- Custom applications with telephony interfaces
- Firewall

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

Overview

The UMG Server Modular 1200 is an appliance composed of a modular voice gateway, which can be assembled with 2 or 4 E1's, and a server with motherboard and processor dedicated to the installation of any Windows, Linux or FreeBSD based platform.

With the UMG Server Modular 1200 it is possible to develop a complete product such as a unified communication center or a telephone center with call routing, create firewall solutions, with the possibility to configure alarm triggers per IP call.

All this in a single unit, in 1U size, with the possibility of customizing the cabinet so that it leaves Khomp with the customized logo.

Flexibility for your business

The UMG Server Modular 1200 can be composed with several storage options, as well as with the telephony interfaces that best suit the business that will be applied. Composed of 1 module of 2 E1, with the flexibility of using 1 or 2 slots, a RAM stick that can hold up to 8GB, and two SATA ports for connection to SSD and/or 2.5" HDD

Unique processor for your solution

All signal convergence and call routing is processed by the voice gateway that is embedded in the UMG Server Modular 1200, thus freeing the motherboard processing for the exclusive use of the operating system and the application that will be installed in the appliance.

User-friendly Web interface

The UMG Modular 1200 gateway embedded in the appliance has a user-friendly web interface for monitoring, configuration, diagnostics, and system administration. This enables time optimization and greater autonomy for the user. Access can be performed remotely, allowing you to manage multiple UMG gateways, if any.

Route Failover

The UMG Server Modular 1200 features Route Failover, which prevents calls from going dead if a SIP server fails. Failover is implemented using routes together with SIP server monitoring through the Keep Alive feature. When Keep Alive is enabled, the UMG starts sending OPTIONS messages to the SIP server to monitor its state. When the SIP server does not respond to OPTIONS, the UMG will ignore the route on which this server is being used and look for another compatible route.

Simultaneous Call Board

The UMG Modular 1200 carries 120 simultaneous calls over the E1/T1 link, which can vary between TDM/VoIP channels and between VoIP channels (SBC), making the UMG a flexible voice gateway.

As the penultimate line of the following table exemplifies, if there are 90 calls from physical channels in use, it is possible to make another 15 simultaneous calls between VoIP channels, regardless of what the codec is.

Maximum calls between physical and VoIP channel	Maximum simultaneous SBC calls**		
	With codec G.711 ↔ G.711	With codec G.729 ↔ G.711	With codec G.729 ↔ G.729
0	60	60	60
30	45	45	45
60	30	30	30
90	15	15	15
120	0	0	0

** SBC feature requires purchase of additional license.

Technical Specifications



- Product hardware may be replaced without notice.
- Replacement happens when the raw material is not found in the market or when better hardware becomes available.
- When the hardware is replaced, the product will operate at the same potential as the previous configuration.

Server Hardware

- [IPX4020E](#) motherboard
- Quad-core Intel® Celeron® N4120 processor (1.1GHz up to 2.6 GHz)
- 1 DDR4 SODIMM slot with 4 GB RAM (maximum 8 GB)
- Support for up to 2 SATA 2.5" disks or 1 SATA M.2 S80 SSD and 1 SATA 2.5" disk

Optional items *

- RAM expansion to 8 GB DDR4
- Storage Disks:
 - SSD 2,5" 120 GB
 - SSD SATA 120 GB M.2 S80
 - HD 2,5" 500 GB

E1/T1 Telephony Module Specifications

- One link
- Allows you to select the number of channels to suit your telephone operator
- ISDN or R2 signaling (R2 for E1 only)
- Connector options:
 - BNC coaxial → electrical resistance: 75 Ohms
 - RJ45 → electrical resistance: 120 Ohms
- Clock Configuration
- Supports error checking method (CRC-4)
- Channel allocation algorithm selection (first free or balanced channel)
- Channel allocation ordering
- Advanced ISDN and R2 signaling configurations
- Collect call blocking for double answer on signaling R2
- Collect call blocking by signaling in ISDN
- Limit 1 E1/T1 link per media gateway

Security

- Password access to the Web Interface
- Access via HTTP or HTTPS protocol
- ACL → Web Interface Access Control List
- Network topology hiding in VoIP/VoIP routing (SBC)

VoIP

- Creation of up to 10 VoIP accounts with or without registration
- Supported Codecs
 - G.711 (a-law and μ -law)
 - G.729A
 - G.723
 - G.726
- Network port selection for SIP and RTP protocol for each VoIP account
- SIP and RTP using TCP protocol
- Support the Keep Alive (SIP OPTIONS)
- Option to override source port
- Using the destination number via URI
- Cause Report Q.850
- DTMF send mode selection:
 - In band
 - Out band → RTP (RFC 2833)
 - Out band → SIP Info
- T.38 fax and pass-through support
- Echo cancellation:
 - Standard filter and double filter
- Tail-length adjustment up to 128 ms

Smart Modular Routing

- Route selection by prefix
- Route selection by regular expressions
- Changing Destination and Source Number
- Force codec and destination profile on route with VoIP outbound
- Route Failover
- Using "Display name" as caller ID
- Registration of up to 50 routes

Other Features

- Simplified Web Configuration
- One-Step Initial Setup Wizard
- Diagnostic Interface
- Dashboard with channel status and call statistics
- Line volume adjustment
- DTMF Suppression
- Customizable CDR
- SNMP Support
- Logging locally or on remote server
- FTP Access

Physical Characteristics

- Power source:
 - Input: 100–240 VAC, 50/60 Hz
- Maximum Power Consumption: 150 W
- Two RJ45 gigabit Ethernet ports 10/100/1000 Mbps
- Three slots that can hold E1/T1 channels
- Three USB 2.0 ports (one front and two rear))
- One VGA port
- OLED graphic display (only available on UMG Server Modular 1200 DY model)
 - Display dimensions: 0,96" (1,90x2,73 cm)
- Reset button
- Equipment status LED
- E1/T1 Link status LED
- Error Alert LED
- Device dimensions: 482.8x44.45x280 mm
- Approximate weight: 4.3 Kg
- Standard 1U module for 19" rack

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.

Compatibility

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

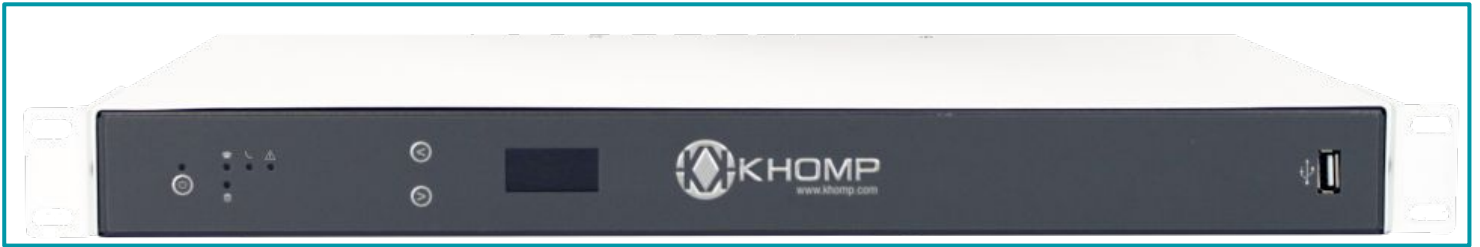
** Does not support display usage

Warranties and certifications

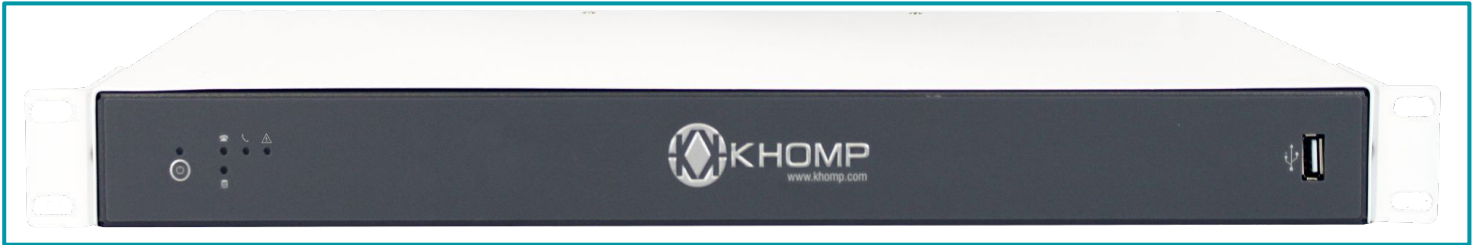
- Full warranty (legal + Khomp warranty): 1 year
 - Legal warranty: 90 days
 - Khomp Warranty: 9 months
- Anatel Certification
- ISO 9001 industry certified

*Optional items incur additional costs.

Product images



Caption: *Front view of model with display.*



Caption: *Front view of model without display.*



Caption: *Rear view.*



Caption: *19" rack mounting kit (side tabs and screws).*

Application model

