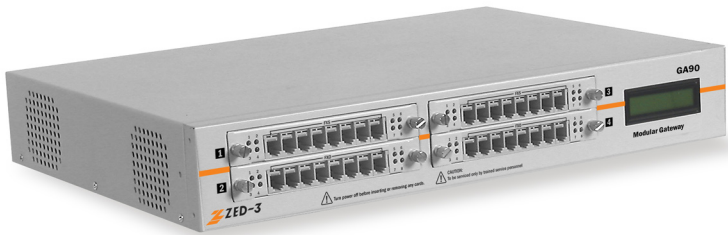


GA90

Modular Gateway



Key Features

- Modular gateway supporting FXO, FXS, T1, and E1
- Permits mixture of interfaces
- Connects to VoIP PBXs or ITSPs over SIP with Ethernet
- Connects to PBXs, key telephone systems, analog phones, or analog phone lines.
- Up to 32 analog FXO interfaces
- Up to 32 analog FXS interfaces
- Up to 3 T1/E1 ports
- Up to 90 channels of voice
- Send and receive voice calls among any interfaces
- Passes caller ID among interfaces
- Fax pass-through
- Call logs and statistics
- Comprehensive call routing
- Call detail records
- NAT traversal
- Simple configuration with web browser
- Multiple languages and world wide support

Benefits

- Connects directly to IP, analog PBX, or T1/E1 switch to simplify wiring
- Connects to traditional phone systems or PSTN with analog and T1/E1 circuits
- Compatible with open standards SIP networks
- Enable voice communication among IP, T1/E1, and analog lines

- Free calls to phone network (depending on plan)
- Easy expansion of existing phone systems
- Extend VoIP capability to traditional PBXs
- Useful for business from SOHO to branch office to enterprise
- Save money by creating toll by-pass among regional offices

Description

The Zed-3 GA90 modular gateway is a stand alone gateway for VoIP and PSTN. It converts the format of a phone call to allow it to pass between these networks.

The GA90 modular gateway comes with four modular slots; each can be used with an 8 port FXS card, an 8 port FXO card, or a T1/E1 card. This ensures the GA90 modular gateway can be fully connected to the PSTN.

The GA90 modular gateway is designed to connect to Internet telephony service providers (ITSPs) and any VoIP telephone systems using SIP. You will save money on making phone calls because of the low rates offered by ITSPs or creating toll by-passes among offices. You will also save money on infrastructure because the GA90 modular gateway can be easily integrated into your existing network.

Hardware and Telephony

The GA90 modular gateway can be mounted in a 19" rack and has four slots into which you can plug any interface module: 8 port FXS module, 8 port FXO module, and one port T1/E1 module.

The FXS port can connect to analog telephones or to a PBX (in which case, it appears as the telephone exchange). The FXO port connects as a subscriber to your PBX or to the telephone exchange. The T1/E1 port connects as user side to the telephone exchange or network side to other equipment.

SIP Operation

There are two working modes in which the GA90 modular gateway connects with other SIP devices, including interconnection with other GA90 modular gateways.

The basic working mode is similar to that of a SIP phone in which the GA90 modular gateway registers to another

SIP device, such as a soft switch or IP PBX.

The second working mode is to connect to other SIP devices without registration. This permits the GA90 modular gateway to operate in back to back UAS mode.

IVR (Interactive Voice Response)

The GA90 modular gateway has an IVR function that can prompt callers. This can be enabled or disabled separately for the IP, FXO, and T1/E1 ports.

When enabled, it provides authentication and two stage dialling. A call is answered by the GA90 modular gateway which then prompts the caller to enter a password, a number, or both, depending on your criteria. When calls are received on the specific interface, the GA90 modular gateway will verify the password (if programmed), and collect the destination phone number. The call is then routed according to the routing table in the same way it would be if the IVR was not enabled on that port.

Data Networking

Most IP networks existing today support VLAN and using this feature can increase the voice quality of phone calls. The GA90 modular gateway fully supports IEEE 802.1Q VLAN tagging.

Diagnostics

The system has an LCD on the front panel. This shows the status of the GA90 modular gateway and its IP address. This enables rapid deployment and troubleshooting.

The GA90 modular gateway provides Ping, Traceroute, and DNS Lookup for network diagnostic. These tools will help you identify most networking problems.

Fax Origination and Termination

The GA90 modular gateway supports fax to devices connected to the analog FXS ports. This can be with fax pass through or with T.38 fax which is supported by most ITSPs.

System Administration

The GA90 modular gateway has an HTML based administration UI so that it is not necessary to install any management software on a PC. The administration UI is intuitive and easy to navigate. You can access and manage the GA90 modular gateway from anywhere as long as you have a web browser and access to the Internet.

The administration UI provides various real time information and statistics of the GA90 modular gateway. These include operation state, system and network information, events and alarms, line status, and comprehensive call detail records (CDRs).

Global Features

Zed-3 sells and supports its products worldwide. The GA90 modular gateway supports telephony protocols for many countries so it can connect directly to the local PSTN. You can navigate the GA90 modular gateway's administration UI in English or Simplified Chinese.

Specifications

Capacity

- 32 FXS ports (loop start)
- 32 FXO ports (loop start)
- 3 T1 or E1 ports
- 90 channels active simultaneously

Telephony and Messaging

- A-law and μ -law G.711, G.729A, G.723.1
- Echo cancellation
- Fax support for Group III up to 9.6 kb/s with T.38
- VoIP and IP Networks
- SIP user agent and B2BUA (RFC3261 compliant endpoint)
- Operates with and without SIP registration
- Dynamic jitter buffering and packet loss compensation
- Adaptive VAD with CNG
- 802.1Q VLAN tagging
- DTMF signalling in band, RFC2833, or with SIP Info

Configuration and Management

- HTTP interface (uses web browser)
- English and Chinese languages for administration
- Least cost routing
- Diagnostic tools: ping, tracer, DNS lookup

Hardware Specifications

- LCD on front panel
- LED indicators on chassis and modules
- RJ11 connectors on analog modules
- RJ45 connector on T1/E1 module
- Reset button
- One 10/100 Mb/s LAN port

Power

- Input: 100~240 Vac @ 47~63 Hz
- Power: 70 W

Physical and Environmental

Operating temperature: 10°C to 40°C (50°F to 104°F)

Storage temperature: 0°C to 50°C (32°F to 122°F)

Weight: 5 kg (11 lb). Shipping weight 7 kg (15 lb)

Size: 440 mm (W) x 300 mm (D) x 70 mm (H) (17" x 12" x 3")

Mount: Standard 19" rack from front, or rear; 2 RU (89 mm)

Safety: FCC Part 68

EMI: FCC Part 15A

RoHS: Compliant



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