SMG 1000 FXO/FXS VoIP Gateway

CarpeStar
Telecom solutions

- **Compact 1U 8/16/24/32 Ports (SIP)**
- **FXS/FXO Configurable**
- **FoIP Supported(T.30 to T.38)**

Easy to install, configure, debug, and maintain

With a simple and economical way to helps legacy telephone, fax machine and PBXs interconnect with IP network, CarpeStar SMG1000 analog media gateway enables call center and multi-branch enterprises to process powerful, versatile and efficient VoIP solutions for unparalleled cost advantage.

SMG1000 Analog Gateways allows for a well-planned, phased migration to an IP network, making the gateways an easy solution for enterprises looking to enhance their legacy PBX equipment with new VoIP access and applications. Connected between a PBX or an Analog and a LAN, the SMG1000 Gateways convert analog PSTN messages into a format suitable for transmission over standard IP networks.

Functional Description

Designed for voicemail and unified messaging applications, SMG analog Gateways have a 10/100 Base-T Ethernet connection for connecting legacy PBX to a WAN/LAN. The analog loop start functionality supports integration via in-band signaling (DTMF or FSK) or serial protocols. The SMG1000 Gateways provide a simple, cost-effective transition to voice and data convergence for enterprises with PBXs. Connected externally, they offer an IP solution that works with current legacy equipment. They support SIP-based applications as well as T.38 for fax transmissions over IP (FoIP). Developed and tested in CarpeStar PBX lab and optimized for use in an Enterprise environmentIdeally suited for Enterprise Unified Messaging applications

Configurations

The SMG1000 Gateways can be used to connect IP telephones to a legacy PBX, integrate network-hosted applications with the PBX, extend the PBX to branch offices, and integrate various voice and call processing capabilities in an enterprise LAN or WAN environment.Using exclusive PBX network interfaces the SMG1000 Gateway appliances provide exceptional IP to PBX integration capabilities to protect an investment in legacy telecom equipment.

- **Compatible with general FXO/FXS lines, and a variety of popular PBX manufacturers(Digital PSTN lines compliance would be available)**
Protects investment in legacy telecommunications equipment and allows a controlled migration to IP technology.

Call Routing

The SMG1000 Gateways route calls from the switched network to a VoIP destination on the IP network.conversely,it routes calls from the IP network through a switch port to a destination telephone number on the switched network.The SMG1000 Gateways support the following call routing options:

- **TDM to IP or IP to TDM**
- **IP load balancing**
- **IP fault tolerance**

Support for IP load balancing and IP fault tolerance Allows the ability for inbound (TDM-to-IP) calls to round-robin between available media servers.

Supports configuration via serial, telnet, and a web browser including context-sensitive help

Key Features

Protocol VoiP
Supports SIP per RFC 3260.
RTP/RTCP for delivery of voice over LAN or WAN

IP Security
Supports HTTPS for voice interface

Enhabced Voice Processicng
Supports a variety of compression algorithm, including G.711 A-law and G.729AB

Fax over Internet Protocol
Transcode fax from T.30 (supporting V.17) to T.38 transmission over packet network

Hot Swap
Allows gateway units to be added or removed without affecting other gateway units.

WEB Service Interface
WEB configuration and software upgrade

Technical Specifications:

PBX Interface

Number of ports: 2-32 FXO/FXS configurable Connectors:

2-32 shielded female RJ-11 jacks

Use multiple gateway units for higher port counts

• FoIP Protocol

T.38 FoIP : transcode fax from T.30 fax protocol(supporting

V.17)modulation over a packet network schemes, to T.38 for transmission

• Voice Support

G.711 µ-Law and A-Law, G.723.1, G.729AB Silence suppression with comfort noise G.168 automatic echo cancellation
Call Progress Analysis (CPA), including Positive Voice Detection, Positive Answering Machine Detection (PAMD), DTMF detection, and fax tone detection
Comfort Noise Generation(CNG)
DTMF mode: Signal/RFC2833/INBAND

• Quality of Service

Type of Service (ToS)

IP precedence

• Configuration and Management

Web UI for instant management and status monitoring Telnet

• Call Routing

From IP to PSTN or from PSTN to IP

User configuration list of VoIP endpoints

IP load balancing

IP fault tolerance

• IP Security

HTTPS for web interface

• Power Requirements

Line voltage 100 VAC to 240 VAC

• Approvals and Compliance
For information about RoHS compliance and other approvals, please contact Synway directly.

• EMC/EMI
Compliant with most international standards. For compliance documents, please contact CarpeStar sales representatives.

• Network Features

Network interface: 10/100 Base-T Ethernet LAN port connector: 2

shielded female RJ-45 Jack for LAN Static IP, PPPoE, DHCP Client IPv4,

IPv6

Static/dynamic ARP

Traffic Shaping

DIFFServ, ToS

• VoIP Protocols

TLS/SRTP

OpenVpn

SIP V2.0 (RFC 3261,3262,3264)

ARP/RARP (RFC 826/903)

SNTP (RFC 2030)

DHCP/PPPoE

RTP/RTCP for delivery of voice

Frequency 47 Hz to 63 Hz

• Physical Dimensions

High 44mm

Wide 440mm

Deep 10.51mm

Weight Approximately 8.8ibs (about 4kg)

• Environment
Operating temperature range

0℃ to +45℃,8-90% relative humidity non-condensing

Storage temperature range 20℃ to +85℃,8-90%

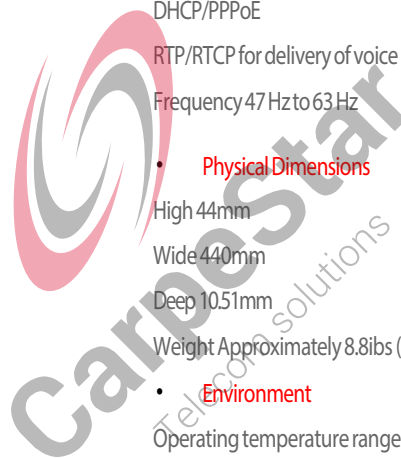relative humidity non-condensing

• Safety
Compliant with most international standards, please ask CarpeStar or its sales representatives worldwide. CarpeStar would comply alll new safety standard to for different regions around the world while needed.

• Telecom Approvals
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• Reliability/Warranty

Estimated MTBF Five Years.