

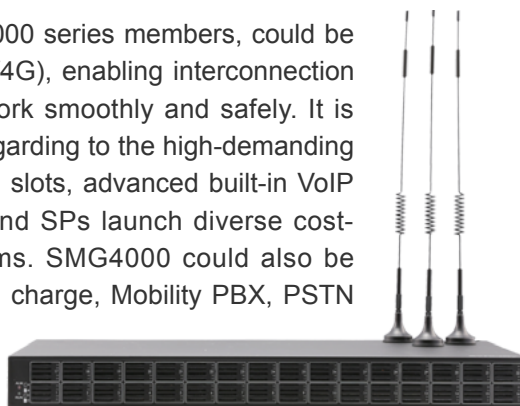
# SMG4016/4032

## Wireless VoIP Gateway

Synway  
VoIP Gateway

### Brief Introduction:

Synway SMG4016/4032 Wireless Gateway, the latest SMG4000 series members, could be compliant with a variety of wireless/mobile protocols (2G/3G/4G), enabling interconnection between GSM/CDMA/WCDMA/LTE network and VoIP network smoothly and safely. It is able to bridge wireless network with IP networks efficiently, regarding to the high-demanding user requirements. SMG4000 adapts self-propelled SIM card slots, advanced built-in VoIP processors and wireless modules, and helps enterprises and SPs launch diverse cost-efficient and flexible Wireless-to-IP communication systems. SMG4000 could also be applied into a range of systems, including remote billing and charge, Mobility PBX, PSTN backup lines, VoIP localization, SMS platform and more.



### Key Features and Benefits:

- **DSP-based Algorithm**

DSP-enabled voice optimization to assure crystal voice quality and maximize bandwidth efficiency; High-speed response and connectivity in the extreme network environments, with better run efficiency; Telco-grade reliability and continuous high performance in fully loaded capacity and in the long run;

- **High security**

High security and privacy for users via automatic-exchange of different SIM cards and Networks. In specific environments, SMG4016/SMG4032 could use and activate multiple SIM cards circularly, improve system security, make full use of bandwidth, and increase ROI.

- **Complete Protocols Range**

Support standard SIP protocols, and could be used worldwide; Support both 2G/3G/4G wireless network (in different versions), including both GSM/CDMA/LTE and More

- **High Voice Optimization Capability**

Adopt Synway's homegrown voice optimization technologies to ensure crystal clear communication, including DSP-based 128mc echo cancellation

- **High Flexibility and Scalability**

Could be configured from 16 or 32 Ports of Wireless-to-IP transmission, and support a diversity of wireless networks in a single system

- **User-friendly GUI**

Easy-to-use service Web based UI configuration and management tools could help accelerate service deployment and simplify platform management

- **High Interoperability with Terminals**

Compliant with all brands of terminal mobile devices and a complete range of SIP trunking worldwide, support auto-provision in complex network environment

- **Telco-Grade Reliability**

Adopts telco-grade standards and components to design and manufacture, and certified and approved by most telecom operators worldwide

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### Functional Description

- **Basic Features:**

GSM: 850/900/1800/1900MHz  
CDMA: 800MHz  
UMTS: 850/900/1900/2100MHz  
LTE 4G: FDD LTE, TDD LTE  
Multiple voice encoding formats supported  
SMS CODEC: ASCII/UCS2  
Open and programmable API  
PIN management  
Call time restriction: SIM Card/Single Call  
Operator locking  
BCCH management  
Call hold  
Call transfer

- **Voice**

Silence suppression and detection  
CNG (Comfort Noise Generator) support  
VAD (Voice Activity Detection) support  
Echo cancellation (G.168), up to 128ms  
Self-adaptive dynamic buffering  
Call progress tone generation  
AGC (Automatic Gain Control) support

- **Protocol**

SIP V2.0 RFC3261  
SDP RFC2327  
Session Timer RFC4028  
RTP/RTCP RFC3551  
SIP registration  
SIP trunk (Point-to-Point)  
SIP trunk group  
Ringback (Immediate/normal)  
SIP/GSM release cause configurable  
DNS SRV/A query  
Out-of-stack agent  
DTMF mode: Signal/RFC2833  
NAT traversal  
Dynamic NAT, Static NAT, STUN

- **Physical Interface**

SIM Card Socket: 64/128-port  
Ethernet interface: RJ45, 2 ETH, 10/100M Base  
CONSOLE: RJ45, RS232, 115200bps  
Antenna interface: SMA  
Status indicator: PWR, RUN, ALM, Channel state,  
Signal strength, ACT per network, LINK status.  
Reset button

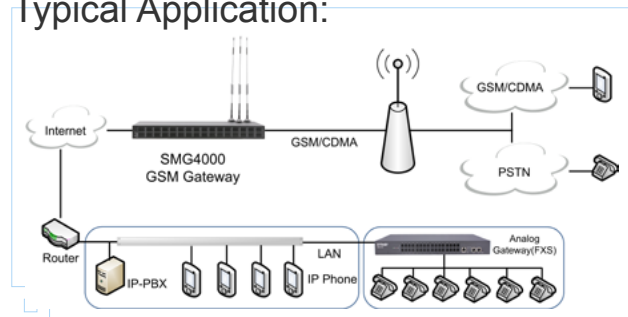
- **Network Protocol**

IP v4, IP v6, UDP/TCP, PPPoE, DHCP  
FTP/TFTP ARP, RARP, NTP  
HTTP, Telnet

- **Management**

Configuration management based on WEB  
Configuration backup/restore  
Interface in Chinese/English  
Firmware upgrade via HTTP/TFTP  
Password modification for WEB sign-in  
Factory settings restore  
CDR and tracking information output  
Syslog  
Ping and Tracet tests based on WEB  
Transport Protocol Count: TCP, UDP, RTP  
VoIP Call Count  
PSTN Count: ASR, ACD, PDD  
Voice loopback test  
IVR Customizable  
System Log  
Centralized cloud-platform integrated management

### Typical Application:



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### Functional Description

- **Dimensions & Weight**

440×44×200mm

Net: 3.5kg

- **Environment**

Operating temperature: 0 C —55 C

Storage temperature: -20 C —85 C

Humidity: 8%— 90% non-condensing

Storage humidity: 8%— 90% non-condensing

- **LAN**

Amount: 2 (10/100 BASE-TX (RJ-45))

Self-adaptive bandwidth supported

Auto MDI/MDIX supported

- **Console Port**

Amount: 1 RJ-45 (RS-232)

Baud rate: 115200bps

Data bits: 8 bits

Stop bit: 1 bit

Parity unsupported

Flow control unsupported

- **Power Requirements**

Input voltage: DC 12V ± 10%

Input current: ≥3A

- **Signaling Protocol:**

SIP V2.0 RFC3261

- **Network Protocol**

IP v4, IP v6, UDP/TCP, PPPoE, DHCP

FTP/TFTP ARP, RARP, NTP

HTTP, Telnet

- **Audio Encoding & Decoding**

G.711A 64 kbps

G.711U 64 kbps

G.729 A/B 8 kbps

G.723 5.3/6.3 kbps

G.722 64 kbps

AMR 4.75 kbps

iLBC 13.3/15.2 kbps

- **Sampling Rate**

8kHz

- **Wireless Feature**

Frequency band:

GSM: 850/900/1800/1900MHz

SMS CODEC: ASCII/UCS2

Model	Frequency
SMG4016-16G/SMG4032-32G	GSM:850/900/1800/1900MHZ
SMG4016-16C/SMG4032-32C	CDMA:800MHz
SMG4016-16W/SMG4032-32W	GSM:900/1800MHz UMTS:900/2100MHz
SMG4016-16WA/SMG4032-32WA	GSM:850/900/1800/1900MHz UMTS:850/1900MHz
SMG4016-16WT/SMG4032-32WT	GSM:850/900/1800/1900MHz, UMTS:850/2100MHz
SMG4016-16LC/SMG4032-32LC	FDD LTE:B1/B3, TDD LTE:B38/B39/B40/B41 TDSCDMA:B34/B39, WCDMA:B1, CDMA2000:BC0 GSM:1X/EVD, 900/1800MHz
SMG4016-16LE/SMG4032-32LE	FDD LTE:B1/B3/B5/B7/B8/B20, TDD LTE:B38/B40/B41 WCDMA:B1/B5/B8, GSM:B3/B8
SMG4016-16LV/SMG4032-32LV	FDD LTE: B4/B13
SMG4016-16LT/SMG4032-32LT	LTE FDD: B1/B2/B3/B4/B5/B7/B8/B28; LTE TDD: B40 WCDMA: B1/B2/B5/B8; GSM: B2/B3/B5/B8

[www.synway.net](http://www.synway.net)

Connect Synway



As a major manufacturer and supplier of communication products and solutions, Synway specializes in providing superior Multimedia Gateway, Integrated Multimedia Switch, Telephony Hardware in use for Telecom communications. Since 1995, over 3,000 service providers, software developers and system integrators have deployed Synway's offerings to deliver a broad range of TDM and VoIP-based applications worldwide, including Unified Communications, SIP Trunking, Call Center, Mobile VAS, Faxing, Conferencing, Call Recording as well as Asterisk-based Open Source Applications. With dedicated teammates and well-known premium services, Synway makes consistent efforts to deliver partners with a variety of customizable, high-performance and cost effective voice communications products.

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