# Synway E1/T1 VoIP Media Gateway

*Safe Bridge Between IP & TDM & Mobile Networks*
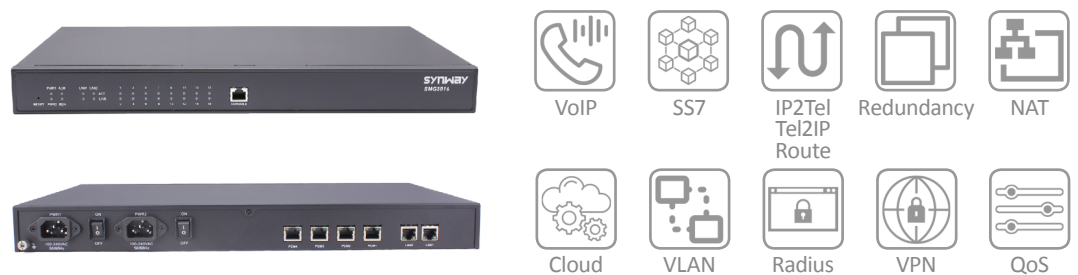
Synway®

# SMG3000-B1/B2/B4

## Hi-Availability E1/T1 PRI/SS7/SIGTRAN VoIP Gateway

- Support 1/2/4 E1(T1 Optional)in 1U Space
- Support SIP and SS7/ISDN/R2 and More
- Telco-grade Redundancy & Dual Power Supply

With a more efficient manner to interconnect and deliver large-scalability services, The Synway SMG3000 enables service providers and carriers to maximize value of their networks and services. The SMG3000 converts digital PSTN message into IP formats and connects and secures sessions across IP and mixed network boundaries to support the seamless delivery of services.

The SMG3000 connects IP and hybrid networks via telephony and E1(T1 or STM-1)/Ethernet links in a compact 1U form factor appliance. It also transforms media and signaling to support efficient and reliable voice, fax and multimedia sessions for mobile, fixed and cloud-based applications. The convergence of IP multimedia and TDM gateway functionality in a single chassis in the SMG offers significant reductions in investment and operational cost when compared to less integrated alternatives.

SMG3000R inbuilt call classification/analytics is vital for hi-density OBD applications, including predictive dialing, dialer, telemarketing and more. It helps minimize dialing cost and maximize value of dialing (human and network) resources. With call classification, OBD applications could improve dialing efficiency by up to 60% and deliver high satisfaction for both agents and subscribers.

| VoIP | SS7 | IP2Tel Tel2IP Route | Redundancy | NAT |
| --- | --- | --- | --- | --- |
| Cloud | VLAN | Radius | VPN | QoS |

## Key Features and Benefits

● Build-in SS7, SIGTRAN, SIP, R2 & More Protocols
Complimentary standardized SS7 Packets(Up to 64 SS7 links, ISUP, MTP1~3, TCAP), SIGTRAN and SIP for any carrier networks worldwide; Field-proven by over 50 largest operators from European, China, USA, India, Brazil, South America.

● Dedicated DSP-Empowered Capability
Telecom-style DSP algorithm has been optimized for over decades, assuring seamless compliance with any network environment. Plentiful DSP resources are allocated for signaling, media processing, bandwidth optimization, Telco redundancy.

● Robust Telco-Grade Architecture
Dual power supply, 1U compact structure, industrial heating sink system, dual 1,000M Ethernet interfaces, and Telco' grade hardware architecture ensures 200,000Hr MTBF and 0-defective rate in long lifecycle.

● Highly Adjustable For Diverse SoftSwitch
Homegrown core technologies to assure seamless compliance with diverse softswitch platform, including Mitel, Avaya, Broadsoft, Yate, OpenSIP, Asterisk, VECTRA, VSC, SIPPULSE, Tropico, FreeSwitch and more other softswitch;

● 99.9999% Availability in Full Load
Support 1~4E1 (30~120Chs) per unit, with higher system responsiveness capability in extreme network for better operational results; High performance and stability in cases of unstable (low) bandwidth and high capacity.

● User-friendly WEB Management
With complete understanding about SPs and operator's headaches, SMG3000 adopts the simplest and straight-forward configuration to achieve SPs and Operators' most sophisticated objectives. Over 10000 units of SMG3000 can run together.

● Improve Dialing Efficiency

In general database of OBD systems, unused numbers accounts for 10~ 30%, suspended numbers for 5~ 20%, shutdown number for 5~10%. It means around 20~ 60% dialing numbers are invalid. With call classification function, dialing systems (predictive dialer) could filter out all invalid numbers for best dialing results.

● Reduce Operational Expenditure (OPEX) by 20%

Unsuccessful dialing incurs higher operational costs while labor cost for telemarketing is specifically considered. According to analytical statistics from surveys, OPEX could be reduced by 20% or more if successful dialing ratio increases by 60%.

● Hi-Accuracy Call Classification

With call classification functionality, over 99.999 %( in some scenarios) of called number states could be accurately detected by analyzing telephone alert tones. Only in much noise conditions over the network, call classification may default.

● Minimize Your Hardware Cost

High voice quality and instant call connection, improving system efficiency and profitability; Synway SS7 VoIP Gateway could reduce hardware cost by 70%.

● High Interoperability

Advanced voice processing and SS7 signaling ability to ensure superb VoIP communications experiences. SS7 packets are customizable and compliant with diverse softswitch.

## Technical Specification:

| Features \ Models | SMG3000-B1 | SMG3000-B2 | SMG3000-B4 |
|---|---|---|---|
| Sessions | 30 | 60 | 120 |
| Segmentation | Enterprise | | |
| Telephony ports | 1 | 2 | 4 |
| Interface | RJ45 | RJ45 | RJ45 |
| Power Supply | Dual | | |
| Power Requirements | AC Power Supply Range 100 – 240 VAC<br>The power supply will operate at frequencies between 47Hz and 63Hz | | |
| Coder support | G.711A,G.711U, G.729 A/B,G723,G722, GSM, iLBC, RFC 2833, RF 3261, SIPINFO, INBOUND | | |
| IP protocols | TCP/UDP, HTTP, ARP/RARP, DNS, NTP, TFTP, TELNET, STUN, etc. | | |
| SIP Protocol | Supported SIP standards:<br>IETF RFC 3261 (SIP: Session Initiation Protocol); IETF RFC 2327 (SDP–Session Description Protocol);<br>IETF RFC 3550 and 3551 (RTP/RTCP); IETF RFC 2833 (DTMF) | | |
| TDM Signaling Protocols | ISDN PRI/MF R2/SS7 ISUP/SS7 MTP1~3/SS7 SIGTRAN/SS7 TCAP | | |
| Dimensions H*W*D(mm) | 44*440*267 | | |
| Environment | Operating temperature range :0 to +55 °C, 8-90% relative humidity non-condensing<br>Storage temperature range:-20 to +85 °C, 8-90% relative humidity non-condensing | | |
| Routing | Call Routing and translation (PCM↔IP) | | |
| Safety | Compliant with most international standards, please ask Synway or its sales representatives worldwide.<br>Synway would comply all new safety standard to for different regions around the world while needed. | | |
| EMC/EMI | Compliant with most international standards.<br>For compliance documents, please contact Synway's sales representatives. | | |
| OAM&P | Network Time Protocol(NTP)<br>Web User interface (WebUI) supports configuration via browser SNMP MIBs | | |

# Synway®

As a leading VoIP enabling-technologies provider in China, Synway has been partnered with applications & solution providers worldwide to deliver turkey solutions for enterprises and telecom carriers. Based on long-standing business network, Synway's appliances and equipments, with third-party compliant software platforms from mainstream application providers, have served 5,000 plus customers, including contact centers, financial institutes, public security, government agencies, service providers, hospitality and operators.

In ever-changeable environments, Synway's long-term goal would be of partnership with vendors of cloud-based unified communications, providing enterprises and SPs with a complete range of cloud-based applications, including Video and Audio Conferencing, Contact Center, IP-PBX, Unified Messaging, Social Media Services and more. For in-house IPR and better customer value, Synway provides strategic partners with customized OEM or ODM services to localize more efficiently. To achieve 0-defective rate, Synway has adopted ISO9001, CE, FCC, RoHS, 3C and more since 2001.

No notice for any change in future in this catalog, For more information or latest update, please visit Synway website.

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