SMG3064

- Compact 1U form factor for 64E1/T1-SIP
- Compliant With SS7/ISDN Globally
- Telco-Grade Reliability and Voice Quality

Introduction

With a more efficient manner to interconnect and deliver large-scalability services, The Synway SMG3064 is a new member of Synway's gateway family that enables service providers and carriers to maximize value of their networks and services. The SMG3064 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 SMG3064 connects IP and hybrid networks via telephony and Fiber Optical/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.

Key features

- **Flexible and efficient Gateway Solution**

SMG supports voice high densities up to 1,920 channels of SS7 signaling, call routing, call translation and IP transcoding in a single 1U chassis for gateway operations. The integrated gateway functionality provides not only interworking between IP and TDM domains, but also automated failover from IP to TDM for outbound routing. These capabilities make the SMG an excellent option for mobile VAS, SIP trunking, contact center and emergency service deployments.

- **Any-to-Any Signaling and Multimedia Connectivity**

SMG3064 provides any-to-any network connectivity through its ability to interwork multiple protocols used by telecommunications providers to deliver services to their retail, business and wholesale customers. It can provide interworking between ISDN, SS7, SIP formats. The SMG also supports any-to-any media transcoding for popular voice codecs. T.38 and G.711 fax interworking and support for RTP, INBAND and SIPINFO method based tones and event handling complement the media transcoding capabilities.

- **User-friendly management and configuration toolkits**

The Web graphical user interface (WebUI) is a real-time web toolkit to configure, monitor SMG. It allows operators to configure and perform real-time monitoring and maintenance. Flexible SIP and Protocols configuration enable services providers and operators to seamlessly connect in hybrid networks, Helping configure SIP, SIP trunking, SIP Mediation, PCM, SS7 and ISDN, Routing and more; And a broad range of gateway toolkits also help gateway's maintenance and software upgrading for Web UI, gateway services and firmware.

Key Features	Values
Flexible SIP and Protocols configuration enable services providers and enterprises to seamlessly connect in hybrid networks	Help configure SIP, SIP trunking,SIP Mediation, PCM, SS7 and ISDN, Routing and more; a broad range of gateway toolkits help gateway's maintenance and software upgrading for Web UI, gateway services and firmware
1,920 simultaneous SIP sessions with multimedia transcoding, and 1,920 channels of SS7 signaling	Scalable IP and TDM connectivity solution provides high performance in a small footprint to help lower ownership cost and operational cost
Combined IP and TDM gateway features on a single platform	Integrated multimedia gateway features facilitate TDM and IP interworking to provide service delivery flexibility and automated failover between domains
Any-to-any signaling and media support	Support for SS7, SIP signaling, and SIP interworking along with voice and transcoding provides a cost-effective platform to help service providers evolve from a TDM to an all-IP environment
SIP profiler and web based user configuration	Easy-to-use service configuration and management tools can help accelerate service deployment and simplify platform management
Integrated transcoding support for voice, tone and faxing	Eliminates the need to add separate hardware to support transcoding requirements helping to reduce CAPEX and number of platforms deployed
Carrier class solution	Carrier class design and features provide high availability, reliable throughput and enhanced service delivery

Technical Specification

- Product model
SMG3064   63E1/T1

- Routing Features
Call routing and translation(from PCM to IP or reversely)

- IP Bearer Features
Coder support: G.711A,G.711U, G.729 A/B, G.722, G.723, GSM, iLBC, RFC 2833,RF 3261,SIPINFO,INBOUND
Compliant with TCP/UDP, HTTP, ARP/RARP, DNS, NTP, TFTP, TELNET, STUN and more IP protocols
Echo cancellation: G.168 128 ms tail length
Voice activity detection and packet loss concealment
Comfort noise generation
T.38 real-time fax, T.38 – G.711 interworking
Digit transmission via RFC 2833 (SIP)
Hosted NAT

- OAM&P
Network Time Protocol (NTP)
Web User Interface (WebUI) supports configuration via browser
SNMP MIBs

- Power Requirements
AC Power Supply Range 100 – 240 VAC
The power supply will operate at frequencies between 47 Hz and 63 Hz

- Power Consumption
About 167W
Environment
Operating temperature range
0 to +55 ° C, 8-90% relative humidity non-condensing
Storage temperature range
-20 to +85 ° C, 8-90% relative humidity non-condensing

- Maintenance
Power supplies field installation

- Physical Dimensions
High: 1.72 in (44 mm)
Wide: 17.32in (440 mm)
Deep: 26.97in (690 mm)
Weight 26.32 lb (Approx.12 kg)

- Resiliency
Ss7 signaling: 1+1 active/standby redundancy
Redundant power supply(Dual power system)

- Smart IP probing

Automated failover (Ethernet and Fiber Optical links)

Failover via automatic protection switching

- Capacity

1,920 TDM channels per 1U shelf

1,920 VoIP channels per 1U shelf

- I/O Interfaces — Rear I/O — T1/E1

Telephony   Fiber Optical 63 T1/E1 for timing (BITS clock),

T1 and E1   signaling and bearer traffic   (T1 - 100 ohms and E1 - 120 ohms)

Clock Sync   Stratum

- IP Interfaces

Dual redundant 2 *1000 Base-T Ethernet for VoIP payload and signaling

- TDM Signaling Protocols

ISDN PRI

ISDN/SS7

SS7 ISUP

SS7 TCAP

Multiple SS7 links in standalone configuration

- IP Protocols

Core SIP Specifications and Notable Extensions

RFC 3261 SIP Basic

RFC 3262 SIP PRACK

RFC 3265 SIP Subscribe/Notify

- Approvals and Compliance

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

- Notable SIP Extensions

RFC 3398 ISUP/SIP Mapping

RFC 3711 SRTP (for SIP)

Tel URI – RFC 3966

IP and ISUP interworking and more

- QoS

Adaptive jitter buffer

Packet loss compensation

Configurable Type of Service (ToS) fields for packet prioritization and routing

- EMC/EMI

Compliant with most international standards. For compliance documents, please contact Synway's sales representatives.

- Safety

Compliant with most international standards, please ask Synway or its sales representatives worldwide. Synway would comply all new safety standardfor different regions around the world while needed.

- Telecom Approvals

(Partially approved)Compliant with most international standards, please ask Synway or its sales representatives worldwide.

Synway

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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