TELEPRIME™
Advanced Communications Division

S&MGS Series Signaling & Media Gateway System
(4 or 8 T1/E1 Ports)

Description

The S&MGS Series Signaling & Media Gateway Systems are fully integrated, self-contained gateways for signaling and media interface or conversion. Applications using older CAS signaling or PRI/SS7 as well as newer SIGTRAN and SIP signaling are supported. Small systems may start at 4 T1/E1 ports and be expanded up to 8 T1/E1 ports (or up to 256 channels). Dual DC or AC power supply options as well as dual VoIP ethernet ports meet critical reliability requirements. Optional Standby 1 +1 system options provide automatic switchover to a standby gateway during a primary gateway upgrade, maintenance function or outage.

SS7 and SIGTRAN protocols incorporate the MTP/ ISUP functions without separate stack components or signaling point code options. Signaling links and associations are equipped by license key activations only without hardware or platform changes. Port capacities may be increased to the maximum 8 T1/E1 ports through activation keys.
Teleprime ACD's signaling and media routing scripts address multiple applications for signaling conversion, processing and routing.

TELEPRIME ACD ORDERING INFORMATION

Part #	Description
S&MGSACN0400	4 x T1/E1
S&MGSACN0800	8 x T1/E1

For DC power, user DC instead of AC
in the part number. For hot-swap power
supply, use R instead of N in part number.
1+1 Hot Standby , add +1 to the part number.

Features:

- **Scalable capacity 4 or 8 T1/E1 Ports**

- **Full featured signaling stacks & functions for CAS, PRI, SS7, SIGTRAN and SIP**

- **Supports multiple signaling types, stacks, routes (OPC/DPCs), SIP terminations. Programmable TeleprimeACD Routing Script**

- **Signaling conversion, interface and gateway in one single 1U chassis**

- **Separate Ethernet managment port can be set to DHCP client or DHCP server**

- **Console command line serial port or SSH over Ethernet for lower level configuration functions**

- **Embedded web server for menu based provisioning, alarm monitoring and control**

- **Advanced diagnostics and logging for network, signaling and call tracing functions**

- **High speed CPU non-blocking operation with ultra-low power consumption**

- **Redundant AC or DC power supply version**

- **Optional 1+1 Standby S&MGS Gateway for automatic switchover supporting upgrade, maintenance or service outage situations (includes T1/E1 network patchpanel for network switching between gateways**

S&MGS Series non-redundant Signaling & Media Gateway

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email: sales@teleprimeacd.com Web: www.teleprimeacd.com

Specifications:

Physical Ports:

TDM Lines .... 4 / 8 T1/E1 RJ48C jacks

VoIP Interface .... Dual 100/1000 Base-T RJ45 Jacks

Management Interface .... Single 100/1000 Base-T and RJ45 front jack for RS-232C Serial Port Adapter

Signaling Protocols:

SIP .... Supported RFCs: 2327, 2976, 3261, 3262, 3263, 3264, 3311*, 3323*, 3325*, 3398, 3515*, 3578*, 3764, 3891, 4028 (*partial compliance)

SIGTRAN .... M2PA, M1UA, M3UA, IUA SS7 termination and/or relay supported

SS7 .... Up to 64 x MTP2 links (56, 64, n x 56/64 kbps, HSL) Multiple redundant MTP2 links Up to 64 MTP3 originating point codes and linksets ISUP variants: ITU 92, ITU 97, ANSI 88, ANSI 92, ANSI 95, Telcordia 97, ETSIv2, ETSIv3, China, Singapore, UK Brazil

ISDN PRI .... Q.931 ISDN PRI: NI-2, 4ESS, 5ESS, DMS-100, DMS-250, Euro ISDN ETSI NET5 (France, Germany, UK, China, Hong Kong, Korea), NTT (Japan), Australia

CAS .... DTMF, MFC R2 (standard ITU and from TeleprimeACD R2 database)

Capacity and voice processing:

VoIP channels ....128 to 256

Vocoding .... Universal codecs: G.711, G.723.1, G.726, G.729ab, T.38 Other codecs: G.722.2 (AMR-WB), G.728, G.729eg, iLBC, clear mode (RFC 4040)

Fax/Modem/Data .... T.38 fax relay (V.17 and V.34) Automatic G.711 fallback Modem and data pass-through

DTMF relay .... RFC 2833, SIP INFO Method

In-bandVoice processing ....Dynamic and programmable jitter buffer (20 to 200 ms)

Voice activity detection (VAD)

Comfort noise generation (CNG)

CALL-CONTROL:

Standalone call control .... TeleprimeACD Routing Script (TDM-VoIP, TDM-TDM, VoIP-VoIP with transcoding) Call routing based on: trunk group, calling/called numbers, nature of address, ASR, time of day, load-based, cost-based, TO:, FROM: Request URI, redirect numbers, and other parameters. NPA-NXX routing (100k+ table entries, Excel or CVS file upload), Route retries, Call transfer (REFER, AT&T TR 50075)

Session management and billing .... SIP peer availability polling, RTP inactivity monitoring, CDR generation (RADIUS and text file)

H.248 (MEGACO) call control .... ITU-T H.248 versions 1 and 2 UDP, SCTP, IPsec transport DTMF and fax detection. DTMF announcements and call progress tone generation Call quality and inactivity alerts

Operation & Maintenance Provisioning:

Operation & Administration ....Web-based system status and operations SNMP v2/v3 GET, TRAPs and alarms Dynamic configuration changes

Maintenance .... Web-based interface for maintenance and alarm monitoring

Provisioning .... Web-based interface for configuration. Dynamic activation

Troubleshooting .... Per-call tracing (history and/or live) Signaling capture tools SSH command-line interface

Other characteristics:

Power input .... 90 to 260 VAC, 47 to 63 Hz -40 to -60 VDC   Non or Redundant power supply with dual power inputs   Maximum 138 W power consumption

Physical characteristics .... Dimensions—1U, 1.719H x 17.4W x 16D in. (43.66H x 442W x 406D mm) Weight—20 lbs (9.1 kg)

Regulatory compliance ....UL/CSA 60950, CSA C22.2—EMC: FCC Part 15:2009, Subpart B, CE Mark (EN55022:2006, Class A, EM60950, EN61000, ETS 300 386)

Environmental:

Operating temp .... 0 to +55 ° C, 95% relative humidity, non-condensing

Storage temp .... -10 to +75 °C, 95% relative humidity, non-condensing

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** - NEBS Level 3 compliant, RoHS compliant