

Description

The S&MGS-2 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. Systems start at 16 T1/E1 ports and be ordered as 32, 48 or 64 T1/E1 ports (or up to 2048 channels). Configurations from 1 to 3 DS3 or 1 OC3/STM-1 are also available. Dual DC or AC power supplies 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 in 16 T1/E1 or 1-DS3 increments with a field upgrade option. Teleprime ACD's signaling and media routing scripts address multiple applications for signaling conversion, processing and routing.

TELEPRIME ACD ORDERING INFORMATION

Part #	Description
S&MGSACR1600	16 x T1/E1
S&MGSACR3200	32 x T1/E1
S&MGSACR4800	48 x T1/E1
S&MGSACR6400	64 x T1/E1
S&MGSACRDS3-10	1 x DS-3
S&MGSACRDS3-20	2 x DS-3
S&MGSACRDS3-30	3 x DS-3
S&MGSACRSTM-1	1 x STM-1 / OC3

For DC power, user DC instead of AC in the part number.

For 1+1 Hot Standby Option, add +1 to the part number.

S&MGSU-16E = 16 T1/E1 upgrade option

S&MGSU-DS3 = DS-3 upgrade option

S&MGS Series Redundant Power Signaling & Media Gateway

Features:

- Scalable capacity 16, 32, 48, 64 T1/E1 Ports, 1, 2 or 3 DS-3 ports or 1-STM-1 /OC3 port
- Full featured signaling stacks & functions for CAS, PRI, SS7, SIGTRAN and SIP (via license keys)
- Supports multiple signaling types, stacks, routes (OPC/DPCs), SIP terminations. Programmable TeleprimeACD Routing Script
- Signaling conversion, interface and gateway in one single 2U chassis
- Separate Ethernet management 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)



Specifications:

Physical Ports:

TDM Lines 16, 32, 48, 64 T1/E1 ports
via patch panel RJ48C jacks
Dual BNC DS3 ports
Optical OC3/STM-1 port

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)

** - NEBS Level 3 compliant, RoHS compliant

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 option 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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