TELEPRIME™
Advanced Communications Division

S&MGC Series Signaling & Media Gateway Converter (1 to 4 T1/E1 Ports)

Description

The S&MGC Series Signaling & Media Gateway Converters are modular low cost 1U rack mount gateways for signaling and media interface conversion. Applications using older CAS signaling, PRI or SIP signaling are supported. Small systems may start at 1 T1/E1 port and be expanded up to 4 T1/E1 ports (up to 120 channels). DC or AC power input options and LAN/WAN ethernet ports are provided. Configurations supporting CAS to SIP, CAS to PRI, PRI to SIP or a mixture may be equipped within a single 1U rack mounted chassis. Modular units support expansion in 1 T1/E1 increments.

The S&MGC Signaling & Media Gateway Converters provide a low cost entry for migrating legacy PBXs and TDM networks to next generation Voice over IP (VoIP) networks or for basic signaling converter applications such as R2 to PRI, PRI NI-2 to PRI-E1 Euro ISDN or CAS/PRI to SIP.

Multiple CAS protocols are available including DTMF, E&M, R1 (Feature Group D), R2 compelled or R2 non-compelled signaling.

Teleprime ACD's signaling and media routing scripts address multiple applications for signaling conversion, processing and routing.

TELEPRIME ACD ORDERING INFORMATION

Part #	Description
S&MGCACN0100	1 x T1/E1
S&MGCACN0200	2 x T1/E1
S&MGCACN0300	3 x T1/E1
S&MGCACN0400	4 x T1/E1
S&MGC-1U	1U Rack Mount Chassis
S&MGC-B	1U Rack Mount slot blank panel

S&MGC Series Signaling & Media Gateway Converter

Features:

- **Scalable capacity from 1 to 4 T1/E1 Ports**

- **Full featured signaling stacks & functions for PRI (both NI-2 & Euro ISDN) and SIP**

- **Programmable TeleprimeACD Routing Script**

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

- **Hot plug expansion for channel expansion**

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

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

- **Multiple CAS Protocols supported - DTMF/E&M, R1 - Feature Group D, R2 Compelled (R2C) & R2 non-compelled (R2NC)**

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

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

- **G3 and T.38 FAX support**

- **Channel Capacity - 30 for E1 , 24 for T1**

- **Download/Upload configuration data**

- **Firmware flash upgradable**

Specifications:

Physical Ports:

TDM Lines .... 1 to 4 T1/E1 RJ45 jacks

VoIP Interface .... Ethernet WAN 10/100 Base-T RJ45 Jack

Management Interface .... Ethernet 10/100 Base-T RJ45 Jack

Signaling Protocols:

SIP, SIPS/TLS:

Supported RFCs: 2246, 3261, 3263,365, 3311, 3323, 3324, 3325, 3428, 3515. 3578, 3581, 3725, 3842, 3856, 3863, 3891, 3892, 4028, 4235

SDP (RFC: 2327, 4568)

RTP/SRTP (RFCs: 1889, 1890, 2833, 3389, 3550, 3551, 3555, 3711, 4733, 3952)

Fax over IP (ITU-T: T4, T30, T38, V17, V21, V27 ter, V29)

ISDN PRI Q.931:

NI-2, 5ESS, DMS-100, Euro ISDN ETSI (NET5), ECMA-143-(QSIG) NTT INS1500 for Japan

Channel Associated Signaling (CAS):

Teleprime ACD Signaling database - DTMF E&M, R1 (MF) Feature Group D, MFC R2 (standard ITU and derivatives), R2 non-compelled

Channel capacity and Voice Processing:

Channel call capacity .... 24 for T1, 30 for E1

Vocoding:

Universal codecs: G.711, G.726 (16, 24, 32, 40 Kbps), G.729A, iLBC (13,33 kbit/s, 15,2 kbit/s); VAD, CNG, G.168 echo cancellation

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 or in-band

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

Billing and Statistics .... Radius Client (RFCS: 2865, 2866), Call Detail Records (CDR)

Operation & Maintenance Provisioning:

Operation & Administration:

Web-based - Operation modes:
Master/Slave, Multilingual web interface accessible from LAN and WAN (HTTP/HTTPS), Password control, User rights management,

Web-based - Management:
Remote diagnostics and software upgrade, Download/restore configuration, Legible and editable configuration files, SNMP monitoring and configuration, Reset button with factory reset option and Custom Language Pack, System event notification via SMS/email Emergency recovery

Troubleshooting:

Diagnostics:
E1/T1 and network diagnostics , Security diagnostics, Remote testing, System logs, SIP IDS logs, Call capture

Environmental:

Physical characteristics:

Stand-alone or mounts in 1U rack mount chassis:

Measurements: .... 8.0" x 4.0" x 1.6" (20.5 x 10.5 x 4.0 cm)
Weight: .... 1.28 lbs. (580 g)

Power input .... 85-264VAC, 47-63Hz, AC Auxiliary output power: 12.0VDC, 0.6A (max)

Operating temperature .... 41°F - 104°F (5°C - 40°C) Non-condensing humidity:5% - 90%

Storage temperature .... 41°F - 140°F (5°C - 60°C) Non-condensing humidity:5% - 90%

Power Consumption .... 4.75W (idle), 8.2W (max)

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