

# Ttrans™

# TMGIP7800

The TelcoBridges Ttrans™ TMGIP7800 is our Carrier-Grade VoIP transcoding gateway.

It provides a scalable hardware accelerated transcoding solution for your network.

A Ttrans TMGIP7800 system consists of 1 or 2 TMGIP7800-CTRL controllers (depending on the clients need for redundancy) controlling up to 16 TMGIP7800-IP transcoder units. A TMG7800-TMS switch can also be added to maximize VoIP channels.

## Product Characteristics:

### System characteristics

- ✓ 4U to 39U rack solution
- ✓ Up to 67,840 VoIP Channels
- ✓ Redundant AC or DC power supplies

### Characteristics of each transcoder unit (system can have from 1 to 16 transcoder units):

- ✓ 2120 G.711 <-> G.726
- ✓ 1692 G.711 <-> G.729a/ab
- ✓ 1480 G.711 <-> G.723
- ✓ 1110 G.723 <-> G.729a/ab
- ✓ 1110 to 2120 simultaneous G.711 to complex codec VoIP transcoding channels

## Ordering information

<i>Part #</i>	<i>Description</i>
TMGIP7800-CTR	Controller
TMGIP7800-TMS	Switch
TMGIP7800-IP	Transcoder

Each configuration is available in redundant AC or DC power.

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## Capacity and Voice Processing

4,240 to 67,840 VoIP channels (hardware and software upgrade)

### VoIP interfaces

Dual 100/1000Base-T per unit  
RJ45 connectors on rear of unit

### Vocoding

Standard codec: G.711 (A-Law and  $\mu$ -Law)  
Complex codecs: G.723.1, G.726, G.729ab  
Other codecs: G.722.2 (AMR-WB), AMR, G.728, G.729eg, iLBC, clear mode (RFC 4040)

### DTMF Relay

RFC 2833, SIP INFO method, in-band

### Echo Cancellation

G.168, echo cancellation  
128 ms echo tail on all channels simultaneously

### Voice Processing

Dynamic and programmable jitter buffer (20 to 200 ms)  
Voice activity detection (VAD)  
Comfort noise generation (CNG)

### Management Interfaces

1 DB-9 serial port with RS-232C adapter per controller  
Dual 100/1000Base-T for OAMP per controller  
Supports virtual IP

## Signaling

### SIP

Supported RFCs: 2327, 2833, 2976, 3204, 3261, 3262, 3263, 3264, 3311, 3323, 3325, 3326, 3372, 3389, 3398, 3515, 3551, 3555, 3578, 3581, 3665, 3666, 3764, 3891, 4028, 4694, 5806  
SIP-I/SIP-T

## TMG-CONTROL

### Standalone Call Control

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 CSV file upload)  
Route Retries  
Call transfer (REFER)

### 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

### Session management and billing

SIP peer availability polling  
RTP inactivity monitoring  
CDR generation (RADIUS and text file)

## OAMP+T (Web-based Interface)

### Operation & Administration

Status, configuration and management GUI  
Configuration change audit logging  
Access and user management  
SNMP V2, V3 GET, TRAPs and alarms

### Maintenance

Automated system upgrade  
System backup, restore and copy  
Extensive system status display  
Multiple software version archive

### Provisioning

Dynamic configuration changes  
Configuration validation  
Multiple configuration archive

### Troubleshooting (TB Analytics)

Call Trace  
Test Call  
TB Sigtrace – Live Signaling Capture  
System Snapshot

## Electrical characteristics (Power Input)

90 to 260 VAC, 47 to 63 Hz, -40 to -60 VDC  
Redundant power supplies (AC or DC)  
From 507 to 3012W power consumption (depending configuration)

## Physical characteristics (Dimensions & Weight)

From 4U to 39U depending of configuration  
Each TMGIP7800-CTRL are 3.5" (88.9mm) H x 17.4" (442mm) W x 26" (660mm) D  
Each TMGIP7800-IP, TMGIP7800-TMS are 3.5" (88.9mm) H x 17.4" (442mm) W x 16" (406mm) D  
From 70 lbs (31.8 kg) to 516 lbs (234.0 kg) depending of configuration)

## 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 temperature: 0 to +55 °C, 95% rel. hum. non-condensing  
Storage temperature: -10 to +75 °C, 95% rel. hum. non-condensing  
Designed to meet NEBS Level 3, RoHS compliant