The TelcoBridges Ttrans™ TMGIP is our mid-level VoIP transcoding gateway.

Recognized for its high-capacity and high-performance, the TMGIP3200 is a 203 to 2120 simultaneous G.711 to complex codec VoIP transcoding sessions gateway that offers the industry’s highest density in a single box (1U) solution.

**Product Characteristics:**

- Up to 2120 sessions of G.726 <-> G.711
- Up to 1696 sessions of G.729A <-> G.711
- Up to 1484 sessions of G.723 <-> G.711
- Up to 1304 sessions of EFR <-> G.711
- Up to 1152 sessions of AMR-NB <-> G.711
- Up to 1112 sessions of G.723 <-> G.729
- Up to 812 sessions of AMR-WB <-> G.711
- Up to 812 sessions of G.722 <-> G.711
- 203 to 2120 simultaneous G.711 codec VoIP transcoding sessions
- Hot-swap redundant power supply (AC or DC)
- 1U VoIP gateway
Capacity and Voice Processing
VoIP interfaces
Up to 4 Ethernet ports 100/1000Base-T
RJ45 connectors on rear of unit
Up to 16 different IP addresses
Ethernet port bonding and 802.1q VLAN support

Vocoding
203 to 2120 VoIP transcoding sessions
Universal codecs: G.711, G.723.1, G.726, G.729ab,
T.38 V.17, clear mode (RFC 4040)
Other codecs: G.722, G.722.2 (AMR-WB), G.728,
G.729eg, iLBC, AMR, EVRC, GSM FR/EFR,
QCELP, T.38 V.34

Fax/modem/data
T.38 fax relay (V.17 and V.34)
Automatic G.711 fallback
Modem and data passthrough, NSE, VBD support
Clear mode (RFC 4040)

DTMF relay
RFC 2833/4733, SIP INFO method, in-band

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

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

Voice recording and announcement playback
Up to 2048 channels (using optional IVR mezzanine)
Also available using existing VoIP channels

High Availability & Redundancy
Power supply redundancy
IP port redundancy
Self-recovery software
Configuration database redundancy
Seamless software upgrade
Fault tolerant software

Signaling
Simultaneously supports any combination or all of the following signaling protocols:

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, 4733, 5806
SIP-I/SIP-T
Extensive SIP header manipulation

Tctrl (Call Control)
Toolpack framework call control
Call routing based on: trunk group, calling/called
numbers (with digit manipulation) and/or
various other protocol information/headers.
Customizable routing including priority-based, load-
balancing, black listing, call limiting, route
retries, etc.
Customizable call cause code mapping
Programmable call routing
Access and manipulation of call parameters
RADIUS authentication and authorization (supports
multiple RADIUS servers)
SIP-based local number portability and CNAM lookup

H.248 (MEGACO) call control
ITU-T H.248 versions 1 and 2
UDP, SCTP, IPSec transport
DTMF and fax detection
Call progress, DTMF and COT tone generation
Call quality and inactivity alerts
H.248 control port redundancy (supports virtual IP)

Session management and billing
SIP peer availability polling
RTP inactivity monitoring, RTCP
CDR generation (RADIUS and/or csv files)
Integrated lawful intercept (ETSI ES 201 671 v.2.1.1)
OAMP+T

Operations & Administration
Provisioning, management and status GUI
CLI and configuration file machine-to-machine
interface (RESTful)
Configuration change audit logging
Access, user and privilege management
SNMP V2, V3 GET, TRAPs (alarms)
Extensive SNMP call statistics MIBs

Management
1 Ethernet control ports 100/1000Base-T
1 USB Type B serial port
1 RJ45 RS232 serial port
GUI-based and CLI system upgrade
GUI-based configuration copy, backup and restore
Storage for multiple software versions
Storage for multiple configuration files
Extensive system status display

Provisioning
Non-service affecting configuration changes
Offline configuration validation
Multiple configuration files archive
Northbound API (RESTful) for automated provisioning

Network Analytics (TB Analytics)
Live call trace with protocol information and ladder
diagrams
Live test call with media playback and recording
TB Sigtrace – Protocol signaling capture into pcap files
Media call recording (scriptable for calling and called
numbers)

Maintenance
Replaceable fan filters

Electrical Characteristics
90 to 260 VAC, 47 to 63 Hz or -36 to -72 VDC
Hot-swap redundant power supply (AC or DC)
Maximum 128W power consumption

Regulatory Compliance
Safety
CAN.CSA C22.2
EN 60950-1:2005
EN 60950-1:2006

EMC
FCC Part 15:2013, Subpart B,
CE Mark (EN55022:2010, Class A, EN61000, ETSI EN
300 386)

HS Code
85176200

Dimensions & Weight
1U, 19” rackmount
1.75” (44.5 mm)H x 16.9” (429 mm)W x 16” (406 mm)D
14.25 lbs (6.5 kg)

Environmental
Operating temperature:
0 to +70 ºC, 95% rel. hum. non-condensing
Storage temperature:
-10 to +85 ºC, 95% rel. hum. non-condensing
Designed to meet NEBS Level 3
RoHS compliant

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