

### PRODUCT DESCRIPTION

The TelcoBridges Tmedia 1+1 solutions answer service providers' needs for high availability and redundancy. Our Tmedia 1+1 solutions consist of three components:

- A standard Tmedia Unit
- A Tmedia +1 Unit
- And a Tmedia 1+1 patch panel

### How the solution works...

When properly installed and configured, the standard Tmedia unit acts as the primary (active) VoIP gateway and the Tmedia +1 unit acts as the secondary (standby). The two devices communicate with each other via the VoIP ports and in the event of product malfunction; traffic is transferred from the active to the standby unit through the patch panel connection, without the need for human intervention.

Tmedia 1+1 solutions ensure redundancy in terms of: power redundancy, packet network redundancy and facility protection.

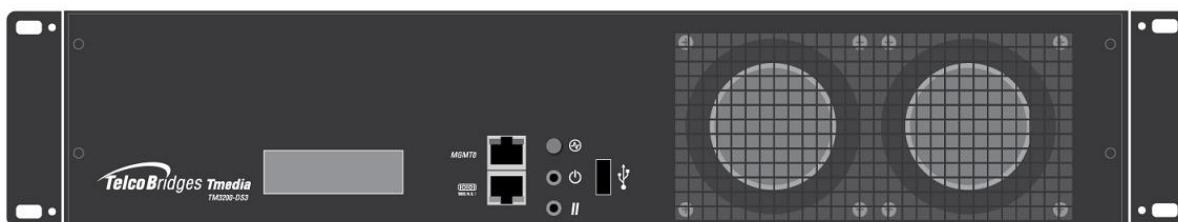
The Tmedia TMG3200-DS3+1 provides a highly available and redundant telecommunications system from 1 to 3 DS3. You can increase the capacity of your TMG3200-DS3+1 through a simple field upgrade available in increments of 1 DS3.

#### Characteristics of the TMG3200-DS3+1:

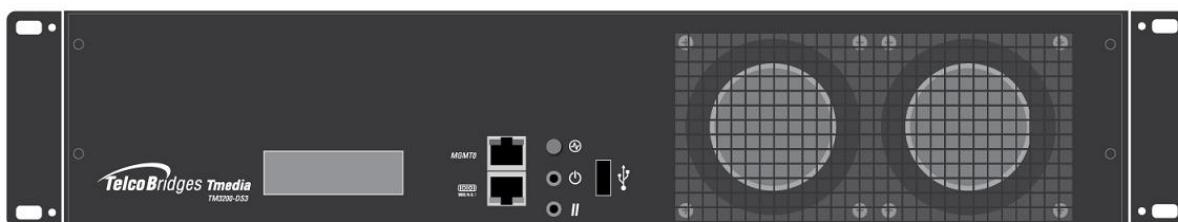
- ✓ 2U VoIP gateway
- ✓ 672 to 2016 VoIP channels
- ✓ 1 to 3 DS3
- ✓ Simple field upgrade available in increments of 1 DS3
- ✓ Redundant AC or DC power supplies

**IMPORTANT:** Tmedia 1+1 solutions are only available for NEW Tmedia products running TMG-CONTROL version 2.6. For more information with regard to TelcoBridges Tmedia 1+1 solution, please contact your certified TelcoBridges Reseller and/or your TelcoBridges Sales Representative.

### ILLUSTRATIONS



**Standard Tmedia TMG3200-DS3**  
2U VoIP / media gateway  
Front view



**Tmedia TMG3200-DS3 +1**  
2U VoIP / media gateway  
Front view



**1+1 Patch Panel for the Tmedia TMG3200-DS3 & TMG3200-DS3 +1, 1U, 19" wide rackmount**  
Passive device

### Ordering information

#### Standard Tmedia TMG3200-DS3 Units

Part #	Description
TMG3200-DS3-1	1 x DS3
TMG3200-DS3-2	2 x DS3
TMG3200-DS3-3	3 x DS3

#### Tmedia TMG3200-DS3+1 Units

Part #	Description
TMG3200-DS3-1+1	1 x DS3
TMG3200-DS3-2+1	2 x DS3
TMG3200-DS3-3+1	3 x DS3

Each configuration is available in redundant AC or DC power.

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## Tmedia TMG3200-DS3 1+1 Solution VoIP / media gateway data sheet

### Capacity and voice processing

672 to 2,016 VoIP channels (simple field upgrade)

### PSTN interfaces

1 to 3 DS3 (simple field upgrade)

BNC connectors on rear of unit

DualRJ48C for BITS or T1/E1 for signalling

### VoIP interfaces

Dual 100/1000Base-T

RJ45 connectors on rear of unit

### Vocoding

Universal codecs: G.711, G.723.1, G.726, G.729ab, T.38 V.17, clear mode (4040)

Other codecs: G.722.2 (AMR-WB), G.728, G.729eg, iLBC, AMR, EVRC, GSM FR/EFR

### 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-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 RJ45 serial port with RS-232C adapter

Dual 100/1000Base-T for OAMP

Supports virtual IP

### Signalling (Simultaneous signalling support)

#### SIP

Supported RFCs: 2327, 2976\*, 3261, 3262, 3263, 3264\*, 3311\*, 3323\*, 3325\*, 3398, 3515, 3578\*, 3764, 3891, 4028, 3581, 3665\*, 3666 (\*: partial compliance)

### SIGTRAN

M2PA, M2UA, 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, Q.767, Telcordia 97, ETSIv2, ETSIv3, China, Singapore, UK

### 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

### TMG-CONTROL

#### Standalone call control

Any to any call routing (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, calling/called digit manipulation, customizable call cause code mapping, call transfer (REFER, AT&T TR 50075)

#### H.248 (MEGACO) call control

ITU-T H.248 versions 1 and 2

UDP, SCTP, IPSec transport

DTMF and fax detection

DTMF, call progress tone generation, COT generation

Call quality and inactivity alerts

H.248 control port redundancy (support virtual IP)

#### Session management and billing

SIP peer availability polling

RTP inactivity monitoring, RTCP

CDR generation (RADIUS and text file)

### OAMP+T

#### Operation & Administration

Web-based system status and operations

SNMP V2, V3 GET, TRAPs and alarms

#### Maintenance

Web-based interface for maintenance

Automated system upgrade

System backup, restore and copy

#### Provisioning

Web-based interface for configuration

Dynamic activation

Dynamic configuration changes

#### Troubleshooting

Per-call tracing (history and/or live)

Signalling capture tools

SSH command-line interface

### Electrical characteristics

#### Power input (per unit)

90 to 260 VAC, 47 to 63 Hz, -40 to -60 VDC

Redundant power supply option with dual power inputs

Maximum 138W power consumption

### Physical characteristics (Dimensions & Weight per unit)

2U, 3.5"(88.9mm) H x 17.4" (442mm) W x 16" (406mm) D

20lbs (9.1kg)

### 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

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