*T*dev™

TMP6400

The TelcoBridges **Tdev TMP6400** is a high-density telecom development platform that meets the needs of service providers looking to expand their value-added services (VAS), providing a cost-effective foundation for introducing new offerings while rapidly scaling to meet the needs of a growing subscriber base.

Whether deployed on a wireline, wireless or VoIP network, the TMP6400 delivers seamless voice interoperability across TDM and IP networks. In addition, the TMP6400 builds on those capabilities with an advanced application platform for delivering ring-back tones, unified communications, pre-paid/post-paid calling, conferencing, fax-over-IP (T.38), voicemail, and other enhanced services to subscribers irrespective of access protocol or device. Leveraging TelcoBridges' Toolpack software toolkit, the TMP6400 provides the ability to rapidly develop and deploy applications that tie together real-time communications from the network with stored external data sources to provide unique subscriber-specific services.

Features & Benefits:

- Carrier grade
- Flexibility
- High-density
- High availability

Ordering information

Part #	*Description*
TMP6400	Dev. Platform Base
TMP6400-CTRL	Server
TMP6400-TMS	MediaSwitch

TelcoBridges TMP6400 is a highly customisable telecom development platform. You can customise your TMP6400 based on the following features:

- Type of **Power** (redundant AC or DC)
- **SS7** (# links from 1 to 64)
- **SIGTRAN** (None, Relay or
- Termination)
- **IVR** (128 to 2048 channels)
- **TDM Interface** (RJ, TE, DS3,
- OC3/STM1)
- **Control options** (Internal or none)
- **VoIP** (none, or from 1 to 4
- mezzanines)
- **SIP** (Signalling Stack or none)
- **Toolpack** (software or none)
- **ISDN** (ISDN variants or none)

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Tdev TMP6400, front view, 2U Telecom Development Platform (available in redundant AC or DC)

Capacity and voice processing

256 to 2,048 VoIP channels (simple field upgrade)

PSTN interfaces

8 to 64 T1/E1 (simple field upgrade) or
1 to 3 DS3 (simple field upgrgade) or
1 OC3/STM1
Independently configurable per port
SCSI connectors to RJ48C patch panel

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 (RFC 4040)
Other codecs: G.722.2 (AMR-WB), G.728, G.729eg, iLBC, AMR, EVRC, GSM-FR/EFR, T.38 V.34, QCELP

Fax/Modem/Data

T.38 fax relay (V.17 and V.34)
Automatic G.711 fallback, modem and data pass-through
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

Adaptive 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

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, 5806
SIP-I/SIP-T

SIGTRAN

M2PA, M2UA, M3UA, (IPSP, ASP, SG), IUA
SCTP (raw IP and UDP)
SS7 termination and/or relay supported
Up to 64 M2UA / M2PA links
Up to 20 M3UA peer server processes

SS7

Up to 64 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, Brazil, SPIROU, Japan NTT
SCCP routing and global title transition

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

MFC R1 (E&M, loop start user / network side)
MFC R2 (standard ITU, Brazil, Mexico)
Customizable protocol script files

OAMP+T

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 supply option with dual power inputs
Maximum 170W power consumption

Physical characteristics (Dimensions & Weight)

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