

# TDAPI 3G-324M Access API

3G-324M access API software allows connection to 3G mobile networks for video telephony and multimedia applications.

## KEY FEATURES

- Up to 240 concurrent H.324 sessions
- Hardware accelerated H.223 multiplexer
- Fully featured H.245 protocol stack
- Portable across MPAC boards
- Play/record video
- Video detection and recording API
- AMR to G.711 audio transcoding on host media processing

## KEY BENEFITS

- Low server CPU requirements
- Easy to use API's
- Flexible call control and switching API's
- Field proven FPGA technologies
- Dedicated Signal processing resource

## APPLICATIONS

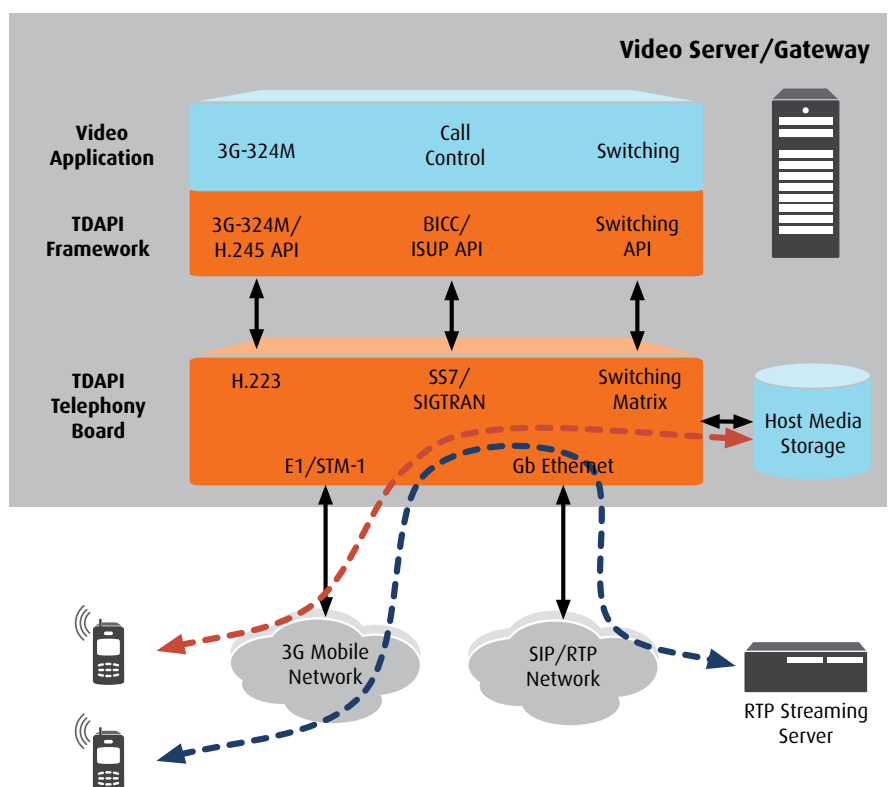
- 3G-324M Server/IVVR
- 3G-324M Gateway
- Entertainment
- Information systems

## OVERVIEW

The TDAPI 3G-324M access API can be used in conjunction with Telesoft's range of MPAC telephony boards to allow OEM's and application developers to develop 3G-324M video products and connect to PSTN and IP networks. The software can setup multi-media sessions with other 3G-324M enable terminals (such as 3G enabled handsets).

Video may be streamed from an IP based media server or the host server's hard disk to the handset (and vice versa) converting bit-stream to/from packet data as needed. Up to 240 simultaneous 3G-324M multimedia sessions may be supported for subscriber video applications including entertainment and information.

The TDAPI API software may use BICC/ISUP call control to set up multi-media sessions but it also features a 3G-324M video detection algorithm which can be used in monitoring applications where call control signalling is not present. Upon detection of a video call the video application can decide to record the video call to hard disk.



# TDAPI 3G-324M

## Access API

### TECHNICAL SPECIFICATIONS

#### 3G video call walk through

The MPAC board provides the physical E1 interfaces; H.223, NSRP, CCSRL and H.245 are implemented as host processes. The board is capable of automatically detecting a 3G-324M call; informing the video application of when a call has been detected; this would normally be accompanied by a call set-up message carried by out of band signalling such as ISDN or SS7, also handled by the MPAC board. On receipt of an incoming 3G-324M call the H.223 layer automatically establishes the mobile level (usually mobile level 2) and opens logical channel 0 (LCN 0) for the H.245 call control signaling. The TDAPI H.245 process then performs terminal capability exchange and master/slave negotiation using information supplied by the video application at the start of the session. Logical channels for both the voice and the audio are opened automatically for the media streaming.

The TDAPI API makes the audio and video logical channels available to the video application as termination points which can be accessed via the switching API to stream video, to and from, IP based video servers. Alternatively video can be recorded to and streamed from the host server's hard disk drive. User information events such as DTMF tones are reported to the application via the TDAPI Framework.

#### Features and Benefits

- TDAPI 3G-324M is supported on both the MPAC media server board and the MPAC media gateway board, which are half width; half height; form factor PCIe boards; compatible with the latest generation of servers.
- Controlled by the TDAPI framework, allowing full access to the on board media processing functionality, as well as, video capabilities allowing for combined audio and video applications
- MPAC board's use of the latest generation of FPGA means that a single board combination can perform packet loss concealment, echo cancellation, IVR functions and H.324M video all concurrently.

#### Specifications

- 3G-324M as per R99 (3G TS 26.111)
- ITU-T H.223 Annex A (Error handling level 1)
- ITU-T H.223 Annex B (Error handling level 2)
- ITU-T H.223 Annex C&D (Error handling level 3)
- ITU-T H.245 Version 13 (Advanced call control)
- ITU-T H.324 Annex C (Mobile Requirements)
- BICC/MTP
- ISUP/MTP
- ISDN (Q.921/Q.931)

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