

Z-Kit API (ZAPI)

A software development kit allowing customization of interactive, high quality, video and audio solutions on a single chip.

Why ZAPI?

- Complete offering
- Short time to market
- Easy to use API
- 4th IP generation technology
- H.263+ codec
- Support for up to 2 Equator BSP-15 chips
- Implements H.323 v4
- Includes PacketAssist™
- Supports VX Works RTOS

Key MXM Features

- Video call transfer, forward, call pickup
- Dial plans
- Call detail records (CDRs)
- Billing and reporting
- Policy services
- QoS services
- Endpoint configuration
- Remote call initiation
- LDAP directory services
- Gatekeeper functionality
- Status monitoring

Contact us at
zapi@vcon.com

The Z-Kit Application Programming Interface (ZAPI) is a set of media library components for integrating VCON's high performance capabilities into applications based on a single chip. All the ZAPI components are highly optimized to fit in one Equator BSP-15 chip. For application demanding full D1 resolution TV quality video the ZAPI may also utilize 2 BSP-15 chips. The ZAPI is composed of four components - Audio, Video, LAN (H.323) and System. Using ZAPI's Audio component, a full audio codec and AEC based application may be implemented. Using ZAPI's Video component, a full video codec based application may be implemented. Using ZAPI's LAN component, a full videoconferencing client, including VCON's advanced features such as PacketAssist™, Adaptive Bandwidth Adjustment, Media Xchange Manager™ and more, may be implemented. Using ZAPI's System component, debugging tools may be added to the application.

- All in one solution: runs H.323 protocol stack, H.263+ encoding and decoding at 30fps, audio encoding and decoding including AEC
- All on one BSP-15 chip, allowing for rapid development and quick time to market
- Highly optimized for one or two Equator BSP-15 chips, providing high video quality, low latency and low CPU usage.
- VCON PacketAssist™ architecture for advanced Quality of Service (QoS) over IP
- VCON Media Xchange Manager™ management and scalability module

ZAPI Components

The Audio API will start and stop multiple instances of audio encoding and decoding, receive audio from microphone, send audio to speaker and activate Acoustic Echo Cancellation (AEC). The LAN API includes all of the required functionality to build a LAN-based videoconferencing client including support for gatekeepers, gateways, MCU's and VCON MXM. Included in the LAN API is VCON's PacketAssist architecture, bringing advanced QoS to the video application including proprietary networking algorithms that assure the best IP video and audio quality even when used in congested networks. The Video API will start and stop multiple video instances of encoding and decoding, control video encoding parameters and display layout. The System API supports debug console and debugging messages.

The ZAPI Difference

A complete interactive video/audio solution fully optimized for one or two Equator BSP-15 chips. Included in the ZAPI is over five years of IP communication experience that includes the PacketAssist technology and the Media Xchange Manager, allowing for an integrated, highly scalable and manageable video solution. The MXM module includes IP video PBX features such as video call transfer, video call forward, and hunting groups. The module also includes management and administration features such as billing and reporting, remote endpoint configuration and online video directory services.



VCON's Z-Kit allows for custom development and integration of videoconferencing into a variety of form factors.

ZAPI

To obtain a ZAPI evaluation kit, please contact us at zapi@vcon.com.

Specifications

System

H.323 – up to 2 Mbit/s
SIP support with MXM
One or two Equator BSP-15 chips for optimized price/performance
VxWORKS Real Time OS
Software Language: C, C++
Model Type: Object Code

Video Encode/Decode Rate

Encode/Decode: up to 30 fps QCIF, CIF, Half-D1 and D1 (depending on the number of BSP-15 processors used)
Real time encoding of multiple video inputs

Video Display

Independently sizable self-view with PIP capability for remote
Independently sizable remote view with PIP capability for self-view

Video Standards Support

H.261/ H.263+ with annexes J, F, D, I, T

Audio Standards Support

Narrow band (300-3400 Hz)
Wide band (50-7000 Hz)
Acoustic Echo Cancellation (200 ms tail length)
Automatic Gain Control
Automatic Noise Suppression
G.722, G.723.1, G.711, and G.729

VCON Headquarters
Tel: +972 9 959 0059
Fax: +972 9 956 7244

VCON Americas
Tel: +1 512 583 7700
Fax: +1 512 583 7701

VCON Europe
Tel: +49 89 614 57 0
Fax: +49 89 614 57 399

VCON China
Tel: +86 10 65269791
Fax: +86 10 65269790

VCON France
Tel: +33 155 840 175
Fax: +33 155 840 179

VCON Germany
Tel: +49 89 614 57 0
Fax: +49 89 614 57 399

VCON Italy
Tel: +39 06 545 50 217
Fax: +39 06 592 09 24

VCON Spain
Tel: +34 91 444 0900
Fax: +34 91 444 0907

VCON United Kingdom
Tel: +44 1256 316 586
Fax: +44 1256 316 585

www.vcon.com
info@vcon.com

ZAPI Logic Diagram

