



## Open Standards Based Platform for Voice Mixing/Audio Conferencing

### Wide-band Voice Quality

Let us introduce you to the first real-time voice appliance that supports 16 kHz voice quality delivering an unparalleled user experience. Conduct your conference calls, distance learning, real-time multimedia applications, and multi-user gaming applications in the fullest most robust sound quality available. The VM1000/3000 uses the iSAC codecs to deliver wideband audio that exceeds that of traditional phone calls by utilizing a wider range of the audio spectrum.

### Highly Customizable

The VM1000/3000 enables service providers and enterprises to deliver conference services and applications that were once cost prohibitive. Preset modes such as reservationless conferencing are installed on each appliance and can be easily tailored to meet business needs. Whether you need to provide a specialized call flow for a new business opportunity or advanced features such real-time conference control from your application, the VM1000/3000 makes it easy. There are two VM models to chose from starting with a 500 port entry level system in a 2U chassis and 3000 port system all within a single Compact PCI chassis.

### Standards Based

Built using Asterisk and WYDE's custom DSP-based media processing module, the VM1000/3000 provides unsurpassed flexibility without sacrificing performance. The VM1000/3000 leverages thousands of users and developers in the worldwide Asterisk® community to ensure a stable and open platform.

### Unparalleled Value

Low-cost and flexibility do not mean a compromise in reliability. The VM1000/3000 is field tested with our conferencing partners and internally tested by our conferencing experts and proven testing methodology. It also includes other ground breaking features:

- Instantaneous active speaker update
- Real-time conference control via SIP
- Web service API for integration with 3rd party applications or sites

### Capacity

- 500 – 7000 concurrent G.711 calls or up to 3000 iSAC calls per chassis
- Number of participants in a conference and number of conferences is limited only by the number of available ports

### Media Support

- Wide-band – iSAC
- Narrow-band -- G.711, G.723.1A, G.726, G.728, G.729AB, G.729D, GSM-FR, GSM-EFR, AMR-NB, EVRC, SMV, iLBC

### Operational Features

- Easy to change AEL based call-flows.
- Preconfigured call-flows include:
  - Free and authenticated conferences
  - Recording and playback
  - Mute/Hold participant or group of participants
  - Lecture style conferences
  - Entry/Exit tones
  - Custom greetings
  - Roll call
  - Question & answer sessions
  - Dial out
- Active speaker notification via CSSRC
- Web Services API for integration with the customer web and applications
- RADIUS support
- Billing adapters for custom integration with the existing billing systems
- Adaptive jitter buffer with configurable upper limit
- Independent volume and gain control for each participant
- DTMF support RFC 2833
- High availability of equipment and software
  - All hardware units are redundant
  - Proactive software and hardware monitoring



### Protocols Supported:

- SIP; H.323; IAX; MGCP
- SDP
- RTP; Secure RTP

### Management:

- Web admin
- Command-line
- SNMP

### Physical/Environmental:

- 2U Rack-mountable chassis
  - Full size, single slot PCI cards
  - Dual redundant 10/100 BASE-T via RJ45 connector per DSP board
  - Dual redundant 1Gbe RJ45 for the host
  - Dimensions:
    - 29.31" (74.4cm) D x 17.5" (44.43cm) W x 3.4" (8.64cm) H
    - Weight: 50.71 lbs (23 Kg), maximum configuration
- High Availability Compact PCI chassis
  - 12U PICMG® 2.16 chassis capable to carry up to 14 DSP cards
  - 6U size, single slot cPCI DSP cards
  - Dual Gigabit Ethernet switches
  - 8 Redundant 325W DC or AC power units
  - Dimensions:
    - Height: 12U, 21" (533mm) Width: 17.2" (436mm) Depth: 17" (431mm)
    - Weight: 97.5 lbs. (44.2 kg)
  - Designed for NEBS level 3 and ETSI installations; Five-nines availability
- Operating temperature: +10° to +55° C
- Relative Humidity: 10-90%, non-condensing

### Power Requirements:

- AC input: 100 to 240V AC (50/60Hz) or DC input: -37.4 to -60V DC
- Compact PCI chassis -1300W
- Standard 2U server – 750W

### Certification:

- Designed for NEBS level 3 and ETSI Installations
- Safety
  - UL/cUL 60950 Safety for Information Technology Equipment E179737
    - UL File Number E179737
  - EN/IEC 60950 Safety for Information Technology Equipment CB Certificate and Report Scheme
  - CE Certificate Emissions Test Regulations
  - FCC, Class B
  - EN 55022/CISPR 22 Class B Radiated and Conducted Emissions Tests
  - EN 55024/CISPR 24
  - EN-61000-3-2 Power Line Harmonic Emissions
  - EN-61000-3-3 Power Line Fluctuation and Flicker
  - EN-61000-4-2 Electrostatic Discharge (ESD)
  - EN-61000-4-3 Radiated Susceptibility
  - EN-61000-4-4 Electrical Fast Transient Burst
  - EN-61000-4-5 Power Line Surge
  - EN-61000-4-6 Frequency Magnetic Fields
  - EN-61000-4-11 Voltage Dips, Variation & Short Interruptions
- Network Equipment-Building System (NEBS) Requirements
  - GR-1089-CORE
  - Sect. 2 Electrical Discharge
  - Sect. 3.2.2 Radiated RF Emissions
  - Sect. 3.2.3 AC Line Conducted Emissions-Voltage
  - Sect. 3.2.4 AC & DC Line Conducted Emissions- Current
  - Sect. 3.3.1 RF Radiated Fields
  - Sect. 3.3.3 RF Common Mode
  - GR-63-CORE issue 1
  - Sect. 5.1.1.1 Low-Temperature Exposure and Thermal Shock
  - Sect. 5.1.1.2 High-Temperature Exposure and Thermal Shock
  - Sect. 5.1.1.3 High Relative Humidity Exposure
  - Sect. 5.3.1 Handling Drop Tests- Packaged Equipment
  - Sect. 5.3.2 Unpackaged Equipment Drop Tests
  - Sect. 5.4.1 Earthquake Tests
  - Sect. 5.4.2 Office Vibration Test Procedure
  - Sect. 5.4.3 Transportation Vibration-Packaged Equipment
  - Sect. 5.6 Acoustic Noise Test