biamp.

SOUND THAT MOVES PEOPLE™

vocia

Powerful. Scalable. Flexible.

VOCIA MEETS MODERN PAGING DEMANDS NOW AND WELL INTO THE FUTURE

Whether it's on a college campus, in a corporate office building, or at a bustling airport, keeping people safe in the event of an emergency is any facility manager's top priority. While you can't predict when an emergency will happen, you can plan for it with an Emergency Communication System (ECS). An ECS is more than just an alarm; it incorporates multiple types of communication that fully inform people how to get to safety. That's what it's really all about.

MEET VOCIA

Vocia is a highly reliable solution that provides excellent audio quality and manages all your paging, background music, and emergency communication requirements. It is powerful, scalable, and flexible, and can meet the needs of your facility now and well into the future.

Vocia's clarity and intelligibility are just some of the features that make this platform so special. Vocia not only gets your message where it needs to go, but also ensures those messages are heard and understood. Vocia meets modern paging demands, including simple overhead paging, emergency paging, and general non-emergency paging. In addition to all this, Vocia is interoperable with Biamp's Tesira® product family, providing significant cost savings.

TECHNOLOGY

Whether it's supporting general and emergency paging on a Texas amusement pier or alerting travelers to a platform change at the train station, Vocia technology is working hard behind the scenes. Vocia uses standard IP technologies such as VoIP, and integrates with existing IP networks for multi-site installations. Since Vocia is an Ethernet-based platform, endpoints can be installed anywhere on the system, creating a self-monitoring web of "smart" devices. Vocia was designed to meet the exacting specifications and requirements demanded of professional-grade, multipurpose paging systems and provide a future-proof solution. Here are some of the technologies that make Vocia unique.

Built-in Digital Signal Processing

Vocia operates using a decentralized network, which places digital signal processing (DSP) in all of the endpoints. Distributing the demand for DSP across the network allows Vocia to share resources between devices on an as-needed basis. With this decentralized approach, there is no single point of potential system failure. That means if one element of the system is damaged or goes offline, the rest of the Vocia system will continue operating normally, allowing all messages to be delivered as intended.

Ambient Noise Compensation

Biamp has spent years developing acoustic echo cancellation technology in our audio products. We have applied this knowledge to Vocia's ambient noise compensation (ANC) technology, which allows the paging volume to adjust up or down based on real-time ambient noise levels. If an environment is noisy, the ANC-1 device will adjust the volume accordingly, so that the page can be heard over the din. ANC is also helpful in quiet environments such as hospitals. If patients are resting and the floor is quiet, then the overhead pages will not be harsh or jarring. In addition, ANC technology is very effective in noisy rail stations or busy airports, or even office environments where noise levels vary between floors and departments. The ability to clearly hear pages can relieve stress in emergency situations, or even when racing between gates when your flight is delayed.

Software-Based Zones

Many facilities have their paging systems set up as one large zone covering the entire building. As a result, everyone hears every page, which can be disruptive and cause people to ignore pages. As an alternative, Vocia offers software-based zoning. This allows facility operators to send targeted pages to those who need to hear them. With this tool, zones can be added or moved within the software as a facility's needs change, without costly rewiring.

Multipurpose paging systems you can trust.

Comprehensive System Monitoring and Reporting

Vocia components can be monitored and controlled remotely, helping to identify when site visits are needed for ongoing maintenance. Vocia also interfaces with building systems such as fire panels, monitoring systems, transportation databases, and security systems. In addition, the Vocia system can send emails or other notifications to a facility's command center or to relevant individuals if evacuation messages are triggered. The Vocia platform includes several options for comprehensive system monitoring and reporting that can be customized based on a facility's needs.

Vocia's end-of-line devices test and report on speaker line integrity with Vocia amplifiers. This allows you to monitor and receive notifications if one or more loudspeakers are not receiving a signal from a Vocia amplifier. If an error is detected, it will be displayed in the Vocia software. This is particularly helpful for large facilities such as airports and rail stations, which tend to have numerous long speaker runs.

The MS-1e networked messaging processor supports many global paging functions in a Vocia system, including message playback, event scheduling, VoIP paging interface, email reporting, logging, and remote access. The MS-1e acts as a central repository for the system configuration in addition to the locally stored device files, and enables plug-and-play device configuration and replacement. The MS-1e uses Ethernet-based control protocols in conjunction with CobraNet® to function within a Vocia system. With the MS-1e, facility managers have access to several paging tools at the click of a mouse.

EMERGENCY COMMUNICATION SYSTEMS

Around the world, safety concerns remain a frequent topic of conversation. Facility operators need a clear and concise method of disseminating vital information quickly and accurately in order to keep people protected and reduce the potential impact of emergency events. The primary function of an ECS is to inform people about the nature of the situation and present clear instructions, providing a measure of order to a potentially chaotic and stressful situation.

ECS Certifications

NFPA PART 72

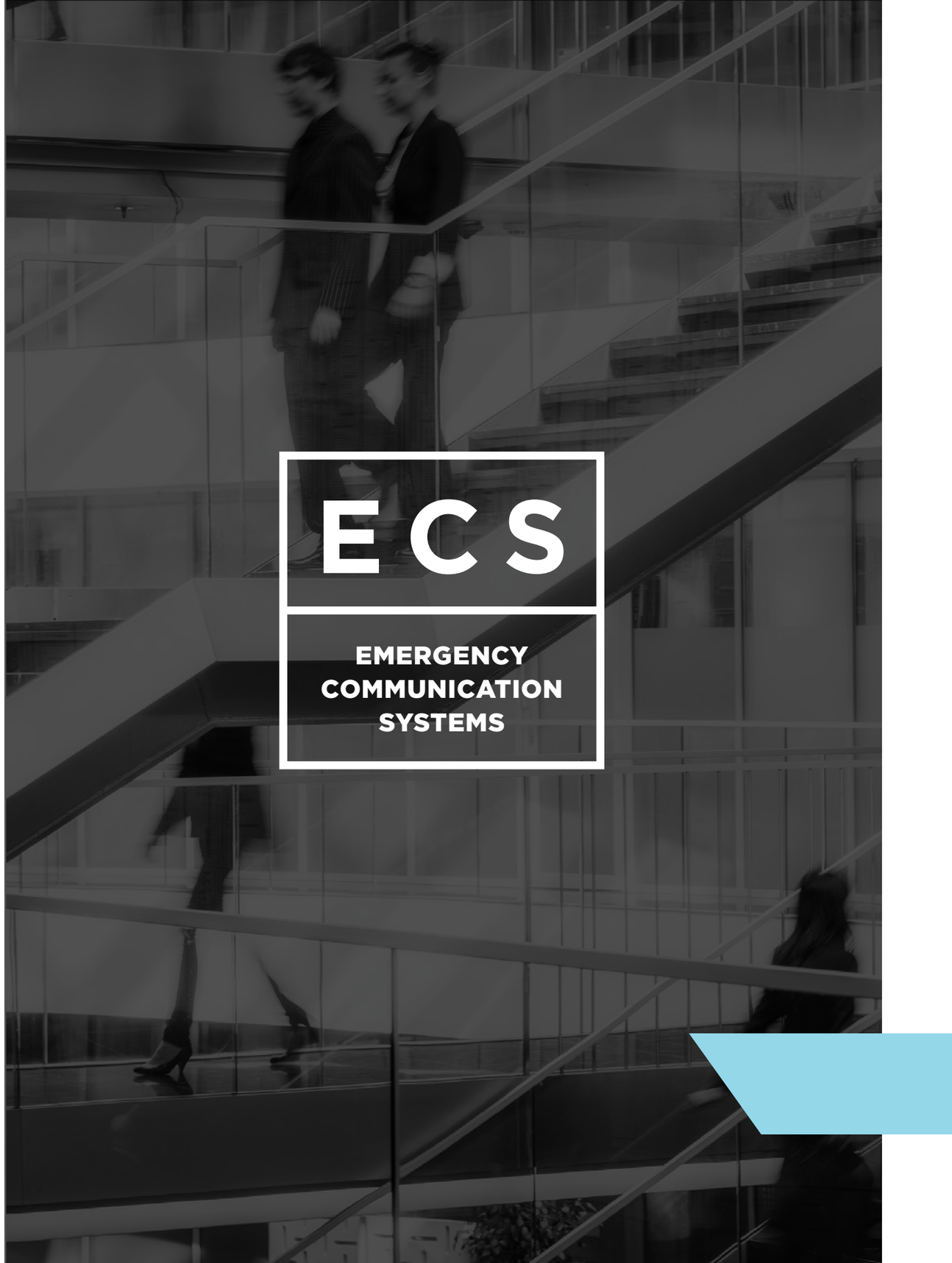
The National Fire Protection Association (NFPA) 72 code presents the latest safety provisions to meet changing emergency communications, signaling, and fire detection demands. This code also includes requirements for mass notification systems used to alert people about terrorist events; weather emergencies; chemical, biological, and nuclear emergencies; and other threats. In the United States, the NFPA 72 is a code provides a foundation for local municipalities to set their own life safety requirements that drive the ECS solution.

EN 54-16

Initially developed as a standard for fire alarm systems, EN 54 addresses certification requirements for voice alarm products. Per EN 54, all new voice evacuation systems installed after 2011 must be ready for operation at all times, and must have a function to detect and report any fault(s) in the critical signal path. As the mandatory standard in the European Union, all fire detection and fire alarm equipment must meet certain guidelines established by EN 54. As the European Union's Construction Products Regulations (CPR), the subordinate EN 54-16 category describes mandatory functions of Voice Alarm Control and Indicating Equipment (VACIE). These guidelines are also recognized in many countries throughout Asia, Africa, and Latin America. Numerous Vocia products comply with and are EN 54-16 certified.

IEC 60945

The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). IEC 60945 is the body of standards relating to Maritime Navigation and Radio Communication equipment. With this approval, Vocia systems can be deployed on marine vessels such as cargo or passenger ships.



Guidelines

Many of the guidelines defining ECS requirements come from NFPA Part 72 in the United States and the EN 54-16 Fire Detection and Fire Alarms Systems within the European Union. NFPA Part 72 provides comprehensive terms, definitions, and requirements of Emergency Communication Systems and defines three critical terms every ECS must address: audibility, intelligible, and intelligibility.

Audibility requires that the alarm tone be a specific level above any ambient noise — but only the alarm tone, not voice messaging.

Intelligible is the ability to understand any directions communicated. As required by NFPA code, messaging must make sense to everyone in the space, and signage must be used to clearly indicate the escape route or location of refuge.

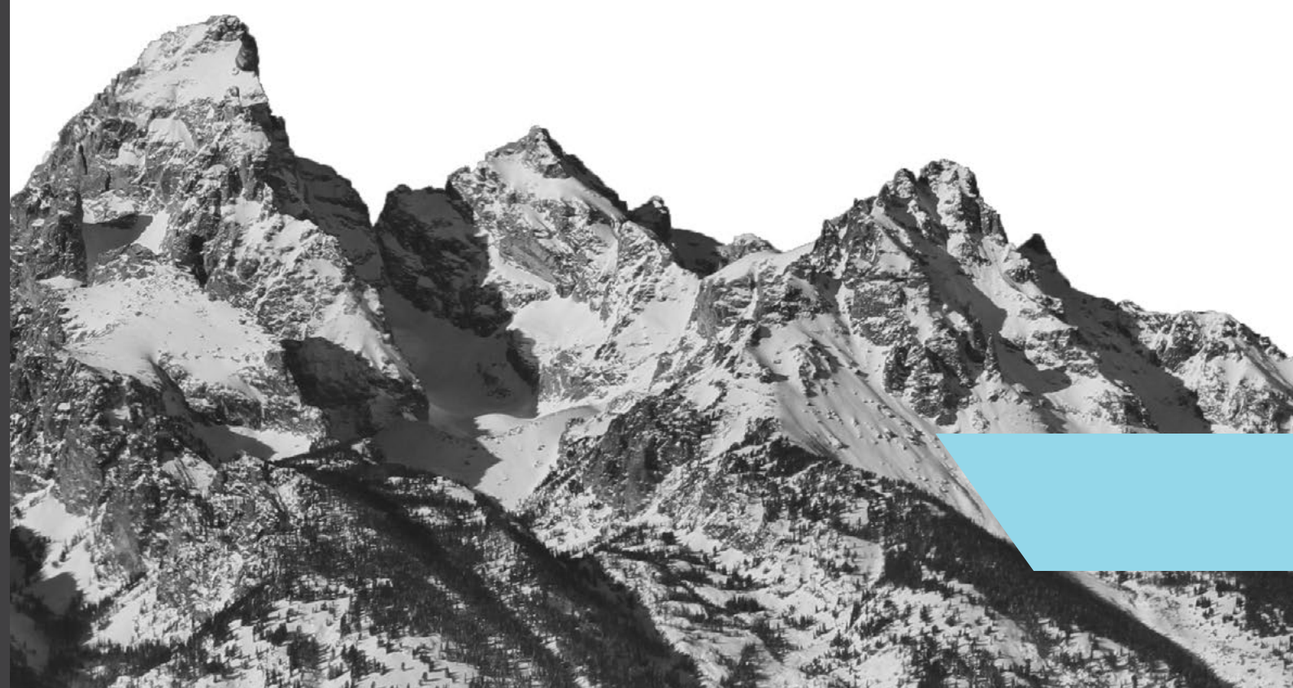
Intelligibility is the acoustic measurement of a space to provide the optimal environment for hearing the system's voice messages. The code requires an average Sound Transmission Index of .5 minimum for the entire space. For large spaces with hard reflective surfaces, this means that acoustic technologies — such as steerable arrays — must be employed to increase the speech intelligibility of the ECS.

How Vocia Can Help

In the ECS marketplace, Vocia stands out for its distributed, decentralized architecture. Other Emergency Communication Systems use a centralized processor. If that processor fails, the entire system fails. Vocia utilizes distributed networking with system intelligence residing in each local device. Should a device fail, only that device is impacted, and the remainder of the system is still operational. Vocia's internal monitoring feature immediately reports any failure so corrective measures can be taken. There are also redundancies built into many Vocia devices, so that in the event of failure, another device can back it up. That means your system will remain functional and keep everyone in your facility safe, even if an element goes offline.

Intelligence and Flexibility

Emergency authorities realize that numerous systems must be utilized across multiple communication channels (audible and visual alarms/messaging, as well as personal devices) so that vital instructions and alerts can be heard and understood by the maximum number of people. Verbal direction is now allowed, in predefined ways, to take precedence over the alarm that may be occurring at the same time. Verbal instructions are critical to successful emergency communications. This is why Biamp has researched these intelligent and automated functions and built them into Vocia. It is imperative to us that we address and meet the latest standards in emergency communications, whether deemed critical now or in the future.



TRANSIT

Whether it's existing stops, new stations, or even future lines, Vocia brings them all together and provides control over the entire paging and ECS with one easy-to-use set of software tools. Vocia's flexibility and scalability make it an excellent choice for the dynamic needs of a public transit system. Its software can be managed from a central office, eliminating the need to travel to individual stations to perform system diagnostics, changes, and adjustments. In addition, Vocia's TTS-1e device supports text-to-speech announcements in multiple languages, allowing transit administrators to broadcast important messages to individual stations or multiple stations simultaneously.

AIRPORTS

Regional and international airports have significant paging and life safety evacuation needs, regardless of daily passenger volume. Vocia's TTS-1e allows gate agents and other airport staff to disseminate messages in multiple languages via text-to-speech functionality, ensuring that passengers can hear and comprehend vital information about gate changes or other urgent matters. Vocia's Ethernet-based architecture uses industry standard protocols and integrates with many older, analog systems without costly rewiring. With middleware, Vocia is compatible with databases like Airport Operational Databases (AODB) and Flight Information Display Systems (FIDS). That means Vocia can be configured to automatically announce gate changes, late arrivals, passenger announcements, and more.

APPLICATIONS

HEALTHCARE

The unique need of healthcare facilities for professional-grade networked public address and voice evacuation systems requires a specialized audio solution. A quieter healthcare environment has countless benefits, including shorter patient stays, faster staff response times, and more efficient operations. Vocia lets you pinpoint messages and announcements only where they're relevant — in a building, floor, or even a hallway. In addition, Vocia's ANC can automatically adjust the volume of pages to be louder or quieter based on real-time ambient noise. The Nurse Call integration package enables a direct connection to supported Nurse Call systems.

EDUCATION

School safety and security are growing concerns among students, parents, educators, and administrators. Students must have access to a safe learning environment in order to grow and thrive. In addition to traditional classrooms, modern school facilities feature multiple structures that can include offices, multimedia rooms, auditoriums, cafeterias, gymnasiums, locker rooms, and libraries. School administrators need to communicate clearly and effectively with students and staff in the event of an emergency. Biamp offers numerous solutions for non-emergency and emergency paging, as well as support for background music and scheduled and pre-recorded messages. An integrated communication and emergency system provides the utmost dependability, ensuring clear communication and security for the building, as well as for staff and students. With this technology in place, students and staff can focus on achieving their goals.

ENTERPRISE

Many corporate campuses include onsite cafeterias, as well as manufacturing and shipping facilities, in addition to the standard executive suites and general office space. With so many employees and site visitors spread across such a large area, campus security is paramount. Receptionists and other authorized individuals can deliver clear, intelligible pages to any part of the building without disrupting unaffected zones. The Vocia platform provides multiple paging options, including live, recorded, and scheduled pages, in addition to VoIP connectivity. Vocia can also support background music in lobby areas or any other part of the campus. In addition, Vocia connects directly to the emergency alarm system and the fire panel to provide safety instructions to employees and anyone else who is present on the campus at any given time.

HOSPITALITY

From small chain establishments to major resort properties, hotels and hospitality facilities feature onsite lounges, restaurants, ballrooms, and other gathering spaces that require background music and other audio. In addition, hospitality properties must be able to communicate effectively with guests in the event of an emergency. Vocia offers numerous solutions for background music and non-emergency paging, as well as support for emergency communications. In large hotel structures and resort properties, a Networked Media System can run several solutions simultaneously, keeping pace with rapidly changing business needs and allowing the hotel or resort to accommodate different types of events, from conferences to large tour packages to weddings. Best of all, Vocia works with Biamp's Tesira platform to provide unmatched networked audio while leveraging hardware across platforms, thereby saving resources.

APPLICATIONS

AUDIO INPUTS

DESK STATIONS	
Vocia DS-4	The DS-4 is a desktop networked paging station featuring embedded DSP, on-board memory, and PoE, supporting both standard and advanced public address functionality.
Vocia DS-10	The DS-10 is a desktop networked paging station featuring embedded DSP, on-board memory, and PoE, supporting both standard and advanced public address functionality with up to 999 user-configurable page codes.

WALL STATIONS	
Vocia WS-4	The WS-4 is a wall-mounted networked paging station featuring embedded DSP, on-board memory, and PoE, supporting both standard and advanced public address functionality.
Vocia WS-10	The WS-10 is a wall-mounted networked paging station featuring embedded DSP, on-board memory, and PoE, supporting both standard and advanced public address functionality with up to 999 user-configurable page codes.
Vocia EWS-4	The EWS-4 is an emergency, wall-mounted networked paging station certified for use in an EN 54-16 life safety system. It features embedded DSP, on-board memory, and PoE.
Vocia EWS-10	The EWS-10 is an emergency, wall-mounted networked paging station certified for use in an EN 54-16 compliant life safety system. It features embedded DSP, on-board memory, and PoE with up to 999 user-configurable page codes.
Vocia VAM-1	The VAM-1 device is an independent microphone assembly that functions as a slave device to the Vocia Wall and Desk Station series microphones and to the Vocia Input 6 (VI-6) for paging via the Paging Ports. It is suitable for surface mounting and is PoE.

EXPANSION INPUTS	
Vocia VI-6	The VI-6 is a networked audio input expansion device that allows the user to add up to six channels of background music or user-defined audio to a Vocia system. Powered by PoE, it has four auxiliary paging inputs supporting the VAM-1 and VPSI-1.
Vocia VI-8	The VI-8 is designed to facilitate live audio paging from user sources to emergency and non-emergency zones in a Vocia system, and supports redundant power via dual 24V DC inputs (power supply included).
Vocia POTS-1	The POTS-1 allows a direct connection of two or four analog telephone service (POTS) lines or POTS-based PBX telephone lines and supports redundant power via dual 24V DC inputs (power supply included).
Vocia VoIP-1	The VoIP-1 acts as a SIP end point allowing a direct connection to an existing VoIP call manager and supports redundant power via dual 24V DC inputs (power supply included).
Vocia PSKIT-1	The PSKIT-1 enables direct connection to third-party equipment such as fireman's microphone stations or custom designed fire panels. It supports up to 999 user-configurable page codes and has dual/redundant power via PoE and 24V DC.
Vocia VPSI-1	The VPSI-1 device allows third party microphones and LED indicators to interface as slave devices to all Vocia Wall Stations and Desk Stations (except the VAM-1), and to the VI-6 device for paging via its auxiliary paging inputs.

AUDIO OUTPUTS

AMPLIFIERS	
Vocia VA-2060	The VA-2060 is a digital networked two-channel amplifier. It is CobraNet enabled and capable of delivering continuous audio power at 60 Watts RMS per channel.
Vocia VA-2060e	The VA-2060e has all the features of the VA-2060 plus local analog inputs, dual power supply, and is EN 54-16 certified.
Vocia VA-4030	The VA-4030 is a digital networked four-channel amplifier. It is CobraNet enabled and capable of delivering continuous audio power at 30 Watts RMS per channel.
Vocia VA-4030e	The VA-4030e has all the features of the VA-4030 plus local analog inputs, dual power supply, and is EN 54-16 certified.
Vocia VA-4300CV	The VA-4300CV is a digital networked four channel constant voltage 70V/100V amplifier. It is CobraNet enabled and capable of delivering continuous audio power at 300 Watts per channel, and is EN 54-16 certified.
Vocia VA-8150CV	The VA-8150CV is a digital networked eight channel constant voltage 70V/100V amplifier. It is CobraNet enabled and capable of delivering continuous audio power at 150 Watts per channel, and is EN 54-16 certified.
Vocia VA-8600	The VA-8600 is a networked multi-channel amplifier. It is CobraNet enabled and features up to eight channels of modular amplification and DSP with optional channel-to-channel or device-to-device failover.
Vocia VA-8600c	The VA-8600c is a networked multi-channel amplifier. It is CobraNet enabled and features up to eight channels of modular amplification and DSP with optional channel-to-channel or device-to-device failover and is EN 54-16 certified.

SPECIALTY VA-8600 MODULES	
AM-600	Basic Amplifier Module for VA-8600.
AM-600c	Amplifier module with standards-compliant ground fault detection for VA-8600.
PARM-1	Page Active Relay Module for the VA-8600 amplifier.
VFOM-1	Failover module for use with the VA-8600/VA-8600c amplifiers offering selectable 7:1 or dual 3:1 channel failover.

EXPANSION OUTPUTS	
Vocia VO-4	The VO-4 is a networked audio output expansion device allowing the user to add four line-level analog outputs to a Vocia system.
Vocia VO-4e	The VO-4e is an enhanced networked audio output expansion device allowing the user to add four line-level and audio outputs to a Vocia system. The VO-4e can be configured for channel-to-channel or device-to-device failover, and emergency messages for life safety systems are stored in non-volatile memory.

PRODUCTS

MONITORS/CONTROLLERS

Vocia ANC-1	The ANC-1 automatically adjusts output levels in response to changes in ambient noise levels and is PoE.
Vocia ELD-1	The ELD-1 is an end-of-line device compatible with all Vocia amplifiers. It tests and reports speaker line integrity between itself and the Vocia amplifier and is PoE.
Vocia PLD-1 and 2	The PLD is a line-monitoring device compatible with several Vocia amplifiers. It provides a simple supervision method for many types of paging speakers, and can monitor up to a maximum length of 1.3km (4,300ft) of speaker cable.
Vocia GPIO-1	The GPIO-1 is a monitored device and can be used with an LSI-16e in life safety applications where more logic inputs or outputs are required. It is EN 54-16 certified and has dual/redundant power via PoE and 24V DC.
Vocia WR-1	The WR-1 is a networked wall remote designed to control background audio in user-defined zones. It has a backlit LCD and is PoE.

MESSAGING PROCESSORS/INTERFACES

Vocia LSI-16	The LSI-16 serves as an emergency interface between a Vocia system and emergency/fire alarm systems. It features parallel I/O ports, redundant network connections, and power via 24V DC or PoE.
Vocia LSI-16e	The LSI-16e is an enhancement to the LSI-16 adding 16 additional control inputs and is EN 54-16 certified.
IM-16	The IM-16 is an optional module for the LSI-16 that adds an additional 16 control inputs that can be configured in the Vocia software as alarm, fault, or reset inputs.
Vocia CI-1	The CI-1 Control Interface is a companion product to the Vocia LSI-16. It facilitates necessary connections to the LSI-16/LSI-16e to meet EN 54-16 standards and has dual 24V DC power inputs.
Vocia MS-1e	The MS-1e is a networked messaging processor that supports multiple paging functions within a Vocia system including message playback, event scheduling, VoIP paging interface, logging, and remote access.
Vocia TTS-1e and TTS-1nce	The TTS-1e and TTS-1nce are designed to work in conjunction with an MS-1e to enable text to speech messaging as part of a Vocia system solution.

SOFTWARE

Vocia's software includes a powerful dashboard that allows quick and easy access to diagnostics, system health information, status, usage, audio levels, and more. System alerts are displayed on the dashboard, and can be automatically emailed, so you're never out of touch. In addition, the entire interface and navigation is based on the familiar Windows® platform, so it's intuitive and easy to navigate. Vocia also has a powerful set of configuration tools — zones and worlds are created entirely within the software — logically, not physically. That means moves and changes can be made easily, without having to relocate hardware. You can also add and configure new components when the software is in the offline mode, and install new devices when you're ready. The system will automatically recognize new hardware as you add it, saving both time and hassle.

TRAINING

We offer self-paced online training courses and webinars, including online certification courses for some of our product lines. In addition, in-person training courses are available at our training center in Dubai, and members of our Applications Engineering team host informal Vocia training seminars while visiting customers to discuss projects. To learn more about our training classes visit biamp.com/training.

SUPPORT

When you need help, you don't want long hold times or confusing voicemail systems. That's why we've streamlined our support process and created a dedicated support phone number. You can reach our award-winning Support team 24 hours a day, from anywhere in the world. If you're located in the U.S. or Canada, dial 1-877-242-6796 (1-877-BIAMP-XO). If you're located elsewhere, we'd still love to hear from you. Call us at +1-503-718-9257. Prefer to troubleshoot on your own? That's great too. Check out Cornerstone, our online technical support knowledgebase, at support.biamp.com. You'll find dozens of detailed articles designed to help you stay on track.

The Team You Trust.

biamp.

CONTACT US:

9300 S.W. Gemini Dr.
Beaverton, OR 97008
USA

E: biampinfo@biamp.com
W: biamp.com

1.800.826.1457
+ 1.503.641.7287

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