



Case Study: Hospitality

Beijing APM Mall

Beijing's Internationally-Recognized Shopping Mall Receives a Much-Needed Upgrade with Vocia.

With six floors and dozens of retail outlets, Beijing APM Mall is one of the most popular shopping destinations in China's capital city. Opened in 1998, the facility features 120,000 square meters of shopping area on multiple levels, as well as three onsite office towers. Spacious walkways line each floor, and the ground level includes a large central atrium that serves as a central gathering space for shoppers and workers alike. The mall is operated by Sun Hung Kai Properties, a major property management firm based in Hong Kong.



“Zhang Yu, Facility Manager at Beijing APM Mall, commented that “the self-monitoring and email alerts offered by Vocia provided the most convenient way **TO MANAGE THE SYSTEM WHILE SAVING RESOURCES AND EQUIPMENT SPACE.**”

-Amornthep Tantikovit
DinoTech Ltd senior consultant

THE CHALLENGE

Though Beijing APM officially launched in 1998, the structure predates it by a decade. Originally known as Sun Dong An Plaza, the property was constructed in the 1980s, and its original PA system had remained unchanged since that time. Much of the technology had become obsolete. No system monitoring functions were available. Instead, the operator manually performed monthly checks to ensure that the fire system worked properly with the emergency player, core processing unit, amplifier, and speakers. The existing amplifiers were prone to malfunctions, requiring many spare units to be on-hand. In addition, the facility lacked flexible zoning for emergency announcements and pages, leading to pages and announcements being broadcast throughout the building.

Beijing APM's owner decided to launch a renovation project that would modernize the mall and upgrade the aging audio system substantially. Mall operators did not wish to close the facility during the upgrade. To prevent disruption of normal activities, all areas had to remain operational at all times, and the PA system was required to be live and functional 24 hours a day. This presented a significant challenge for both project planning and the eventual system changeover procedure.

Beijing APM Mall's location on Wangfujing Street places it a short distance from the famous Tiananmen Square, which is subject to the government's highest life safety system requirements due to its position as a prominent tourist attraction and public gathering space. As a result, the facility's fire system had to be directly connected to the government fire system. Current regulations require the fire system to create status reports on the voice evacuation system and retains detailed logs and other information if a fire occurs.



SOLUTION

DinoTech served as the AV consultant, while Audio Systems Consultants Ltd. (ASCL), based in Guangzhou, was chosen to conduct the installation. Because the mall and adjacent office towers remained operational throughout the project, work was restricted to non-business hours (10 p.m. – 7 a.m.), and all installation sites were required to be cleared of debris and equipment prior to the facility's opening each day. ASCL installed more than 200 JBL Control 24T ceiling speakers throughout the facility's six floors and two basements during these hours. Once the initial installation concluded, the new Vocola-based racks were installed and terminated. As a result, the project took a year to complete. The speaker system is driven by eight networked 8-channel Biamp Vocola VA-8600c amplifiers.

Biamp's Vocola solution supports simultaneous control of the background music and voice evacuation system without compromising quality. Vocola is EN 54-16 certified, and its distributed network approach offers flexibility, scalability, and reliability. By using decentralized network architecture, all processing and page routing can be distributed across the network, thus eliminating the potential for a single point of system failure. Although Vocola is capable of operating as a simple overhead paging platform, Beijing APM Mall implemented it as an advanced paging and EVAC system spanning 64 loudspeaker circuits across 48 zones.

Beijing APM Mall's facility was divided into three zones — Zone A, Zone B, and Zone C — with an AV equipment room located in the basement and a fire control center on level one. Both the AV equipment room and the fire control center are capable of controlling and monitoring the system through the customized Stardraw Control graphical user interface (GUI) system via VTP. The control room was designed to house the new system with proper cooling, UPS, dual feed mains, and appropriate security measures.

A total of 80 speaker zones and 48 fire zones span the facility, each outfitted to broadcast background music throughout the day and emergency announcements as required. Nine sets of VA-8600c units with VFOM-1 were installed. The installation also included a paging station DS-10 in the fire control center for emergency paging, as well as a paging station DS-4 in the level one customer care center. The LSI-16e and CI-1 were interfaced with the fire system at the fire control center.

The system is connected to two Vocola Output (VO-4) devices, which convert four channels of digital audio apiece into line-level analogue audio outputs. Vocola software on a rack-mounted PC allows for DSP parameters, including filters, a compressor/limiter, and gain, to be configured. In addition, the output units store messages automatically and configure information locally, while simultaneously receiving audio and control signals via the network. The Vocola software monitors the overall system health on an ongoing basis, and sends automatic email alerts regarding status. Facility managers can log on to check the status of the system remotely. Finally, the entire PA system is backed up to a two-ton battery pack that is capable of lasting at least 30 minutes at full load, or up to eight hours at normal load.

“THE SELF-MONITORING AND EMAIL ALERTS OFFERED BY VOCIA provided the most convenient way to manage the system while saving resources and equipment space.

- Zhang Yu

Facility Manager at Beijing APM Mall

CONCLUSION

Beijing APM Mall's operators chose Biamp's Vocia solution based on its reliability and flexibility, as well as the significant support and training offered for all Biamp products. Vocia provides confidence to the developer, onsite retailers, and the Beijing Fire Department. Vocia's decentralized architecture is beneficial to the facility for a number of reasons, including meeting China's fire safety codes, supporting Amplifier Failover and ELD, providing direct notifications for any system failures through Vocia software and third-party GUI software, reducing the need for spare amplifier modules, and providing a single point of control and monitoring. With Vocia, different paging zone groups can be assigned to different page codes, with different priorities and flexible grouping for general paging vs. emergency announcements.

As a result of Sun Hung Kai Properties' investment in Vocia, Beijing APM Mall has been able to attract major international brands including Nike, the Apple Store, and China's first three-story Zara flagship store. By adopting Vocia to operate its EVAC, BGM, and paging needs, the facility has demonstrated its strong future ambitions and its ongoing compliance with strict government safety regulations. Vocia offers easy maintenance and control, as well as scalability for hassle-free project implementation in the future.

ABOUT BIAMP SYSTEMS

Biamp Systems is a leading provider of innovative, networked media systems that power the world's most sophisticated audio/video installations. The company is recognized worldwide for delivering high-quality products and backing each product with a commitment to exceptional customer service.

The award-winning Biamp product suite includes the Tesira® media system for digital audio networking, Audia® Digital Audio Platform, Nexia® digital signal processors, Sona™ AEC technology and Vocia® Networked Public Address and Voice Evacuation System. Each has its own specific feature set that can be customized and integrated in a wide range of applications, including corporate boardrooms, conference centers, performing arts venues, courtrooms, hospitals, transportation hubs, campuses and multi-building facilities.

Founded in 1976, Biamp is headquartered in Beaverton, Oregon, USA, with additional engineering operations in Rochester, New York, USA and Brisbane, Australia. For more information on Biamp, please visit www.biamp.com.