

St. Paul's Union Depot



SUMMARY

• LOCATION

St. Paul, Minnesota, USA

• FACILITY SCOPE

A historic railroad station and transit hub with 40,000 square feet of customizable event space

• OBJECTIVES

Overcome the depot's highly reverberant acoustics and varying noise levels to provide clear paging and sound reinforcement for passengers and guests.

• BIAMP SOLUTION

- Community™ Loudspeakers
- Vocia™ Voice Communication System

• OUTCOME

Thanks to Biamp's Community loudspeaker line and Vocia VCS, speech intelligibility and sound reinforcement were implemented within the depot's design, while also avoiding acoustical treatments disallowed by its status as a historic place.

• EQUIPMENT

- Community ENTASYS ENT-FR Loudspeakers
- Community surface mount and ceiling loudspeakers
- Vocia Voice Communication System

Restored to its original 1920s grandeur, St. Paul's Union Depot again serves as a transportation center and hosts concerts, art shows and other events. During restoration, the depot's highly reverberant acoustics and widely varying noise levels presented significant challenges for implementing clear voice paging for passengers and natural sound reinforcement for its frequent public events.

As the building architect and engineer, HGA Architects and Engineers (HGA) worked with the Ramsey County Regional Rail Authority (RCRRA), the project engineers, and the construction companies to carefully restore the building's beautiful interior of brick, plaster, marble and terrazzo.

It was determined early on that any new audio technology utilized within the space must complement, not compete, with the depot's interior; and due to the building's placement on the Registry of Historic Places, no acoustical treatments could be employed. Fortunately, Biamp's Community loudspeaker line delivered the necessary clarity without violating the Registry's rules.

SOLUTION

To meet the challenges presented by the depot, HGA chose a distributed system design based on Biamp's Community ENTASYS FR column line arrays placed along the walls and aimed into the public spaces. The ENTASYS three-way, full-range column loudspeakers deliver true line array performance in a compact package and are designed for permanent installation in a variety of applications such as auditoria, airports, train stations, conference centers, and houses of worship. The high output and power handling capabilities of these loudspeakers outperform comparable systems, boasting multiple low frequency, midrange, and high frequency drivers for the most consistent coverage available.

The double-stacked ENTASYS loudspeakers were installed at the "people space" height, providing even coverage while keeping sound out of the high arched ceilings and minimizing reverberation. The ENTASYS loudspeakers, custom painted by Biamp to blend in with the depot's interior, were supplemented by Community ceiling loudspeakers in low-ceiling areas and surface-mount loudspeakers in outdoor areas. The Vocia Voice Communication System (VCS) was employed to provide mixing, zoning, and amplification; the system also includes ambient noise compensation to maintain suitable system levels with varying crowd and transit noise.



CONCLUSION

The completed system achieved the intelligibility goals of the project, with clear announcements and natural sounding voice reinforcement for events. Customizing the loudspeakers to seamlessly fit within the depot's preexisting aesthetic also demonstrated Biamp's commitment to never sacrificing form over function. With the implementation of Community loudspeakers and Vocia, communications in St. Paul Depot Center are now firmly based in 21st century technology while retaining the beautiful design of a bygone era.

ABOUT BIAMP

Biamp® is a leading provider of innovative, networked media systems that power the world's most sophisticated audiovisual installations.

Recognized worldwide for delivering high-quality products and backing each one with a commitment to exceptional customer service, Biamp's mission is connecting people through extraordinary audiovisual experiences.

Founded in 1976, Biamp is headquartered in Beaverton, Oregon, with offices and manufacturing facilities located around the world.

CONTACT US

✉ biampinfo@biamp.com

☎ 800.826.1457

🌐 www.biamp.com