CASE STUDY
Mass Transit

Metro Rail
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Digital Acoustics partnered with an internationally renowned corporation that designs and manufactures light rail vehicles. The collaboration was established to deploy a security intercom and paging system for one of the Nation's largest metropolitan cities.

About Metro Rail

A major US urban rail system, serving the second largest city in the United States, consists of six lines, including two rapid transit subway lines and four light rail lines for 93 stations.

This rail line, that also connects with the city's metro bus rapid transit system and commuter rail system, has an impressive and daily weekday ridership of 362,904 passengers.

The Situation

With an aging fleet of metro train cars and the need for expansion, this city was looking for effective solutions to meet the demanding requirements for their new, mass transit system. A primary focus was on improving public movement, safety and security on the rail vehicles.

The Digital Acoustics Solution

Hardware

Digital Acoustics customized a standard "off-the-shelf" product to fit the IP audio requirements for the light rail trains. Starting with two Digital Acoustics' devices (IP7-ST and IP7-SS40), and modifying those devices for harsh environments, a new product line ("RT") was created. This product line (IP7-ST-RT and IP7-SS40-RT) sport M12 locking Ethernet connectors in place of standard RJ45 connectors, locking DIN-rail connectors, conformal coating, and additional vibration-dampening components.

Software

In addition to the hardware, the Digital Acoustics' Software Development Kits (SDKs) were used to provide a flexible, and simple mode of audio management. All communications on board can be initiated by standard physical means (buttons, levers, switches) by an operator, but the overall system is managed by a software console located in the central cab of the train. As train cars are decoupled and recoupled with other groups of cars, the custom software is able to recognize the network, find the server, and reconfigure itself to report to the head car it's connected to.

Results

The partnership between Digital Acoustics and the rail manufacturer proved to be highly successful. Not only was the project set into a multi-year roll-out including hundreds of train cars and thousands of IP Audio Devices, but it also set a new standard in the industry for reliability and intelligibility for mass transit and light rail transportation. The Digital Acoustics System now provides quality communications for thousands of commuters annually.

About Digital Acoustics

Digital Acoustics develops and manufactures network-based IP Audio devices including intercoms, amplifiers and speakers and the software to manage/interact with those end points. Since 2003, Digital Acoustics has been at the forefront of IP audio technology serving the following markets: Higher Education, Retail, Commercial/Industrial, Remote Monitoring and Security, and Military and Government.

Contact our team today to learn about your options in deploying reliable, cost-efficient Intercom, Paging and Mass Notification solutions.

Visit us at www.digitalacoustics.com or you can reach a sales manager by calling: 847-604-9256.