



Industry:
Rail Infrastructure

Solution:
**Public Address and Voice
Alarm system (EN 54)**

Organization/End User:
Network Rail

Country:
United Kingdom

Locations:
1 station

Year of Installation:
2023

System features:
**VIPEDIA-12-NET, V400
amplifiers, MPS Microphones,
RPA wireless Microphones**

Customer:
**Fourway Communications
Limited**

Gatwick Airport Station

Transforming Gatwick Airport Station with mid life upgrade

Zenitel and Fourway completed a midlife upgrade of the ASL PAVA system, extending its lifespan, enhancing the customer experience, and providing scalability for Gatwick's expanding infrastructure.

The Customer/End User

Gatwick Airport Station (GTW), linking Central London with one of Europe's busiest travel hubs, operates 24/7 and serves 60,000 passengers daily. Located adjacent to the South Terminal and easily accessible from the North, it provides quick connections for arrivals and departures, making it crucial to airport operations. Opened in 1958, the station has undergone major upgrades to boost capacity and flow, including the addition of Platform 7 in 2011. Govia Thameslink Railway appointed telecommunication experts, Fourway Communications, to design and install the upgraded PAVA system.

The Requirement

Despite a series of building upgrade programs, congestion issues persisted — particularly during peak travel times. Passenger circulation through the concourse and platforms remained suboptimal, resulting in operational inefficiencies and a diminished travel experience.

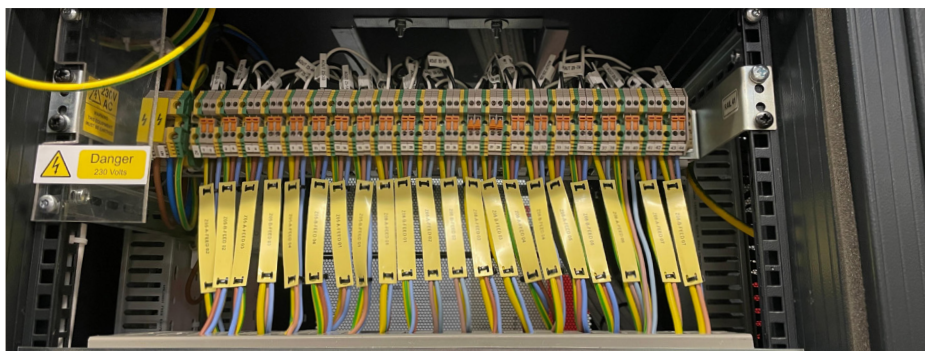
To address these challenges, further enhancements were required, including an upgraded PAVA system to help deliver clearer, more effective communication across the expanded station. The project's primary objective was to ease overcrowding and improve passenger flow. This was supported by new coverage around the vertical circulation elements — such as lifts and escalators — linking platforms to the new concourse above, enabling better coverage and smoother onward travel connections.

In addition, the existing PAVA system, while still fully operational, was nearing end of life after almost 15 years of continuous service. The works therefore needed to extend system longevity by following Zenitel's VAR-to-VIPEDIA upgrade path, ensuring minimal disruption to a 24/7 operational environment while maintaining controlled risk. This upgrade process has been refined to allow a seamless transition between the systems.

All new installations also had to comply with the stringent safety standards expected of a modern transport hub — including EN54 requirements for fire detection and alarm system integration, as well as the battery backup standards outlined in BS5839-pt8.

The Solution

Given the station's and Network Rail's long-standing relationship with ASL/ Zenitel, and Fourway Communications' deep expertise with these systems, continuing with the same hardware manufacturer significantly reduced both risk and cost. The established upgrade path also minimised the need for additional staff training, reduced maintenance complexity, and avoided the extended station closures often associated with large-scale renewals.



The PAVA works delivered at Gatwick included several key updates and installations. New loudspeakers were fitted across public and staff areas, supported by new cabling and amplification. In addition, ambient noise sensors (ANS04), radio microphones (RPA01), and antennas (ANT02) were deployed throughout public spaces to ensure consistent performance.

A new SISS control room was also built, requiring the transfer of all existing assets. This included upgrading the paging microphone to an MPS configured as a key-switched Fire microphone in compliance with EN 54-16. The broadcast automation interface from Worldline (PAPC) was also relocated and reconfigured to align with the new zoning requirements.

Finally, new VIPEDIA Audio Controllers with enhanced DSP capability were commissioned, providing equal — or in most cases superior — intelligibility compared to the legacy system.

The Result

Since its implementation, the upgraded PAVA system has delivered significant improvements to Gatwick Airport Station's operations and infrastructure. STIPA levels have risen markedly, ensuring clearer, more intelligible

announcements. Sitewide radio microphone coverage and new control microphones have enhanced both operational efficiency and the aesthetics of the refurbished control room.

With the expansion of platforms and improved PA performance, staff reliance on the MPS and RPA has decreased, as crowd control challenges have been greatly reduced. Passengers now enjoy a smoother transition from the station to the airport, while platform staff report fewer passenger queries thanks to clearer announcements.

The success of the Gatwick project has already set a precedent. Fourway Communications has since applied the same Zenitel upgrade and migration process at Paddington Square — highlighting the strength of the collaboration between Fourway and ASL/Zenitel. With further stations in the pipeline, the upgrade approach delivers better value for money and enhanced sustainability across the network.



Why Zenitel?

Zenitel is well positioned to drive the future of intelligent critical communication solutions. Through our portfolio of IP products and solutions, with built-in intelligence and a focus on cybersecurity, we provide organisations with superior, scalable security and flexibility. Zenitel is the proven, preferred choice for environments requiring crystal-clear audio to ensure the protection of human life, property, assets and the management of critical activities. With interoperability at all levels, we seamlessly integrate with access control, video management and security platforms—