



## smartVES System and Gateway Integration: PAVA Solution for Manila Metro

Ambient System, in partnership with a local collaborator, delivered the public address system for the Manila Metro project in the Philippines.

### CLIENT OBJECTIVES

Before the project began, the client outlined several critical requirements. First, they needed to select an alternative, long-term provider for Voice Alarm (VA) systems. Second, their goal was seamless integration of these systems with their proprietary software platform, specifically ALVEA. To achieve this, the client and Ambient System collaborated on joint software development—

collaboration to jointly develop software. The aim was to create a Gateway server that would enable both systems to communicate and integrate seamlessly.

### SCOPE OF DELIVERY

The delivery included 16 sites across the Manila metro system. This covered 15 passenger metro stations as well as a large depot facility, which plays a key role

### Ambient System Solutions:

- » Smart PAVAsolution: smartVES (**custom RACK cabinets with enhanced IP54 protection**)
- » Customized Gateway server (**integrated with the ALVEA platform**)
- » Integration with IP telephony system

part of the metro infrastructure. It houses technical rooms, train parking areas, an operations control center, and administrative offices.

## DELIVERED SOLUTION

Ambient System delivered a comprehensive solution, tailored to the unique requirements of the project. This included the development and implementation of custom software for integration with the client's existing systems and the deployment of the DSO smartVES system. The package also featured specially adapted RACK cabinets. These cabinets offered enhanced protection with an IP54 rating for increased resistance to dust and moisture, and were equipped with additional surge protection to ensure system reliability.

An essential part of the provided solution was the Gateway servers, specifically designed for direct integration with the client's software, enabling seamless communication and system control. Additionally, the solution featured integration with the IP telephony system, creating a unified communications platform.

## PROJECT MILESTONES

- › **2022:** Kickoff of partnership and signing of the framework agreement.
- › **2023 – 2024:** System design phase.
- › **2024 – 2025:** Software development phase
- › **2025:** Factory Acceptance Tests and initial deliveries.

The project is currently underway.



Figure 1. From left: the smartVES PAVA system and gateway server.

## DELIVERED EQUIPMENT

Ambient System delivered a tailored smartVES system for the Manila metro project. The scope included supplying systems for 16 sites, covering both metro stations and depots. The solution featured custom software, gateway servers for client software integration, and IP telephony system integration. The key milestones for the project spanned from 2022 to 2025,

and design work is still ongoing.

## SUMMARY

Ambient System delivered a tailored smartVES system for the Manila metro project. The scope included supplying systems for 16 sites, covering both metro stations and depots. The solution featured custom software, gateway servers for client software integration, and IP telephony system integration. The key milestones for the project spanned from 2022 to 2025,

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Figure 2. View of Mandaluyong, Metro Manila, Philippines