



WHITE PAPER

# Public Address systems for train stations

Design requirements and  
technical solutions



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# 1. Introduction

Network Rail would like to work with standard kits for small and medium stations. Ambient are setting out to meet that challenge by defining some simple solutions that meet the need and to show how they need to shape the solution to meet the variations in the station layouts due to size and design differences.

Network Rail specifies general guidelines for the specification of PA systems – including precise requirements concerning equipment such as amplifiers, or loudspeakers and Ambient is working within those guidelines.

These guidelines refer to operational parameters (such as device type, rated power, choice of rigging method, etc.) and acoustic parameters of the sound system as a whole (such as minimum operating bandwidth or target speech intelligibility rating). These guidelines however do not present information concerning system design and/or execution.

**The scope of the following document is to provide additional information on how to plan a PA system for a typical train station, such as:**

- a. Criteria of choosing the amplification system
- b. Loudspeaker choice
- c. Assessing the number of loudspeakers
- d. Additional required functionality

The following information has been prepared based on the example of Ambient System equipment. For small and medium-sized stations the proposed setup is based on the midiVES all-in-one system amplifier.

For larger stations – needing more than 8 speaker zones and individual planning – the proposed solution is based on the MULTIVES networked PA/VA system line-up and is outside the scope of this document.

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