

# Bosch Praesideo voice evacuation in stadiums



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# Bosch Praesideo Voice Evacuation in stadiums



## Summary of requirements

- Address a large number of zones
- Adapt to various acoustic conditions
- Centralized control and supervision
- Interface to fire detection alarm
- IEC60849 compliant

## Sports stadium

A large sports stadium is divided into public and non-public areas, each with specific zone requirements. The public areas include the arena seating, parking garage, access roads, entrances and corridors, restaurants, food and beverage corners and VIP boxes. Non-public areas include the changing rooms, offices, and other facilities such as treatment rooms and restaurants. Furthermore stadiums often house additional businesses like offices and shops. A control center and a security room have access to the sound and voice evacuation system.

## Introduction

Praesideo is the perfect solution for larger applications with many zones such as stadiums. It handles message routing, public announcements, emergency voice evacuation, commentary for events and background music. The system's daisy-chain network topology enables equipment to be located wherever it is required, and facilitates expansion without the need for re-wiring. Praesideo also features advanced signal processing to optimize speech intelligibility.

## Solution

Praesideo equipment racks are distributed throughout the stadium and interconnected via optical cables. The main equipment rack is in the control center with a 24-channel mixer desk, call stations, wireless microphones and background music sources. Power amplifiers are located in rooms at either side of the stadium, allowing shorter conventional cables to the loudspeakers. Built-in supervision and redundancy, including a redundant system bus and class-A loudspeaker loops with digital line and loudspeaker supervision.

## System description

The total Praesideo System comprises a network controller, audio expanders, multi channel interfaces, power amplifiers and call stations. The Praesideo Network Controller manages the public address and voice alarm functions, and is connected to the stadium's fire detection system. For zones that do not require specific sound processing, a multi channel interface in combination with Praesideo class-D Power Amplifiers is used, resulting in a flexible and more cost effective solution.



### Clear user Interface

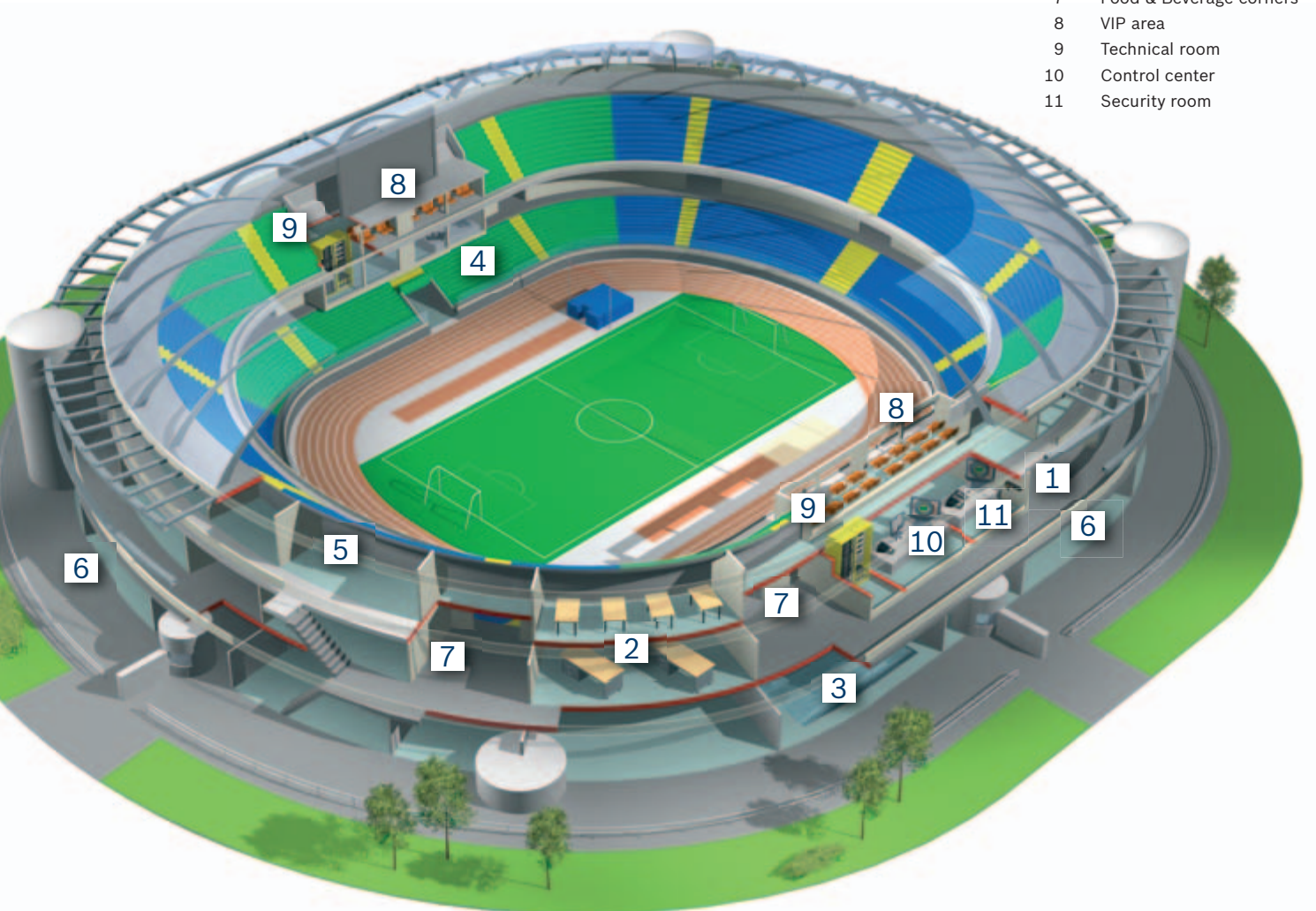
The control center and security room are equipped with a fireman's call station and a touch-screen controlled call station with a graphical user interface. This type of call station is simple to operate for stadium personnel and provides a clear overview of the system's status.

### TÜV certified

Praesideo is certified by TÜV for IEC60849, the international standard for voice alarm systems.



- 1 Athlete area
- 2 Offices
- 3 Swimming pool
- 4 Restaurant
- 5 Medical treatment rooms
- 6 Parking
- 7 Food & Beverage corners
- 8 VIP area
- 9 Technical room
- 10 Control center
- 11 Security room



## **Bosch Security Systems**

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