## Certified solutions

As part of the Bosch Security Systems commitment to meeting international standards, Praesideo meets legislated requirements for voice alarm systems. Praesideo by Bosch is certified according EN 54-16, ISO 7240-16, EN 60849 and compliant with BS 5839:8. The system is also certified for many local evacuation standards.

## Complete security solutions

Bosch Security Systems offers a wide range of security, safety, and communication solutions that are relied upon every day in applications and places around the world, from government facilities and public venues to businesses, schools and homes.

**For more information about the Praesideo Digital Public Address and Emergency Sound System, please feel free to contact your nearest Bosch representative or visit our website: www.boschsecurity.com.**


**Bosch Security Systems**
To learn more about our
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www.boschsecurity.com
or send an e-mail to
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# Praesideo voice evacuation
## Application Note: Universities

- EN 54-16, ISO 7240-16 and EN 60849 certified
- Superb sound & speech reproduction
- Multi-zone functionality
- Easy-to-use: intuitive user interfaces
- Extensive integration possibilities

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### Introduction

Praesideo is the perfect solution for larger applications with several locations, such as universities. It handles message routing (paging), emergency voice evacuation, local amplification for lecture theaters, commentary for sports events and background music in the catering zone. 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. It also features built-in supervision and redundancy, including a system bus loop, class-A loudspeaker loop and "wirefree" digital line and loudspeaker supervision.

## Summary of requirements

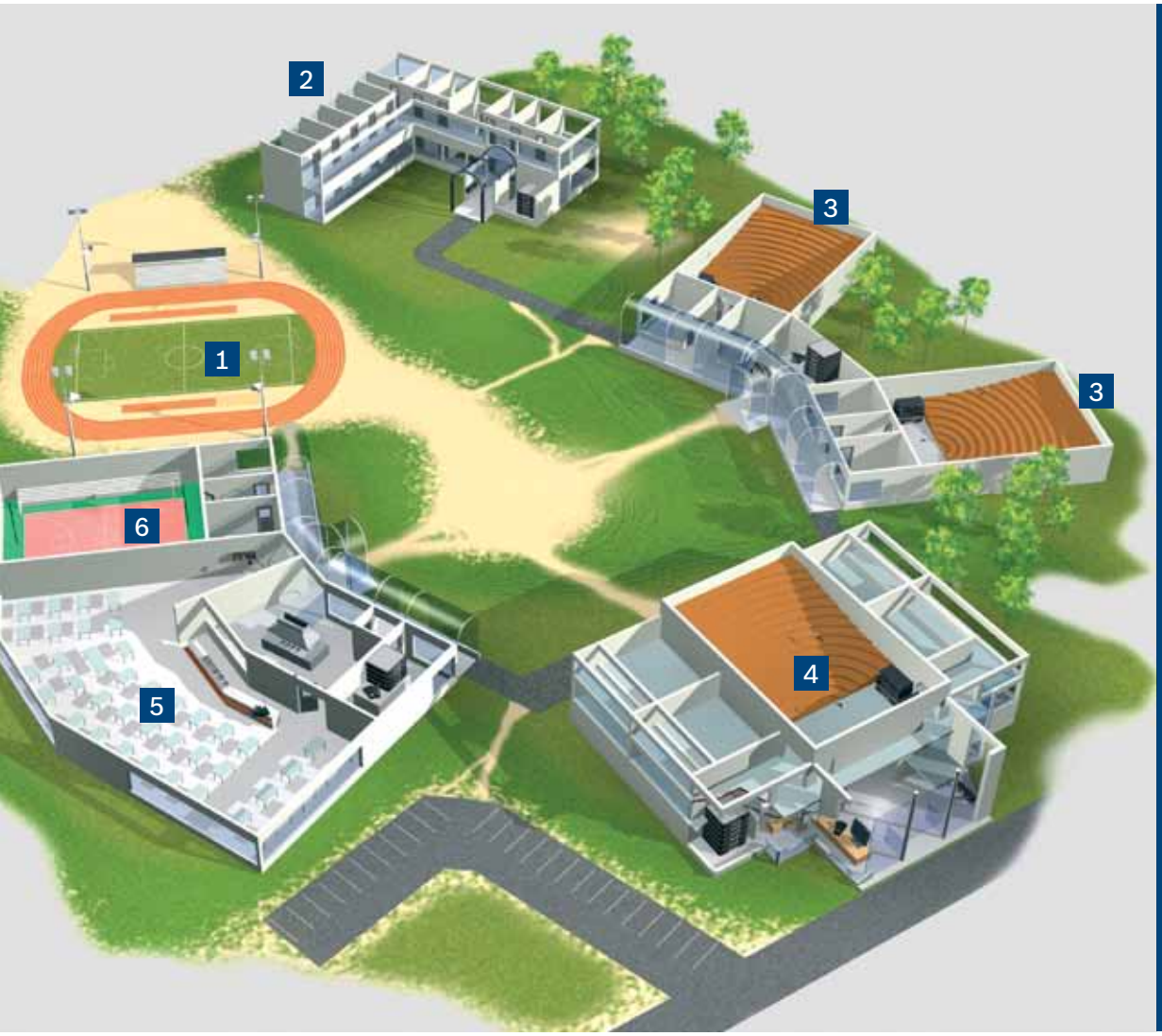
- Exceptionally high-quality speech reproduction
- Central or decentralized system control
- Voice evacuation and in public areas and student dormitories
- Commentary in sport field or stadium
- Background music in catering facilities
- Interface to fire alarm system
- EN54-16, ISO7240-16, EN60849 certified
- BS5839:8 compliant

## University campus

A university campus typically features a main building housing the central administration plus several faculties for the various study disciplines. Each department may have lecture theaters, smaller lecture rooms, offices for personnel and other facilities for study. Most universities also have on-campus student accommodations, a sports field and catering services. Similar applications include training camps and military bases.

## Solution

The Praesideo System equipment racks are distributed throughout the faculties and other locations. With up to 28 audio channels (routed via fiberglass cables), the system can easily accommodate local amplification in lecture halls located in each faculty and in the sports facility.




Multi-site setup

1 Sports facility

2 Student accommodation

3 Small & large lecture theatres

4 Main administration, Large theatre

5 Catering services

6 Indoor sports facility

## 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 university'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.

## Multiple systems

For large sites with several buildings buildings farther away from each other, multiple Praesideo systems can be installed. All systems can easily be controlled from a central location using PC- or touchscreen-controlled call stations, while local call stations in each building/ faculty can be programmed to only access specific zones for local paging. Lecturers use wireless microphones that can only be heard in the appropriate zone.

Audio is routed between systems via supervised Ethernet, using CobraNet* or IP-audio, a technology that supports different audio formats and includes a 20-kHz line-supervision tone for checking the operation status of loudspeaker lines.

* CobraNet is a registered trademark of Peak Audio, a Division of Cirrus Logic, Inc.