bly comfort Maximum productivity Top efficiency
ty Greatest possibly comfort Maximum productivity
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bility Enormous sustainability Greatest possibly comfort

MICROSENS

MICROSENS SMART OFFICE

SMART OFFICE –
BUILDING AUTOMATION UNLIMITED

Telephony, IT, heating control, lighting or shading: If such things and systems in the building are to take over tasks, this takes convergence. But the transitions between the different network types is complex and expensive – if such network couplings are even feasible at all. IP-based building automation creates intelligent buildings. With its Smart Office concept, MICROSENS has embarked upon a pioneering course in building automation: Facility technology goes IT.

Programming the future with MicroApps

On the basis of intelligent, decentralised switches, every element of building technology can be addressed in a network and also interact with the help of MicroApps - which are control programs running on the switches. States can be recorded, evaluated, controlled and regulated. Whether data or lighting, audio-streaming or facility technology – everything that has an IP address is controllable in the IT network. From this interplay there arises a decentralised concept with sheer unlimited possibilities: „Smart Office – unlimited". Everything that is achievable can also be realised by MicroApps.

Scalable and secure

Bestehende Anlagen und Systeme lassen sich Existing installations and systems are easy to integrate in an IP-based environment – an automation gateway takes care of integration via the data network or by radio communication. Integration is possible on a room by room basis. The modular structure serves security at the same time. Each room forms an autonomous unit. This ensures that in the event of a fault, only small units ever fail and the company remains operational. When it comes to security, the IP-based solution is a step ahead in any case. For no other network are there such proven and dependable security standards.

A paradigm shift

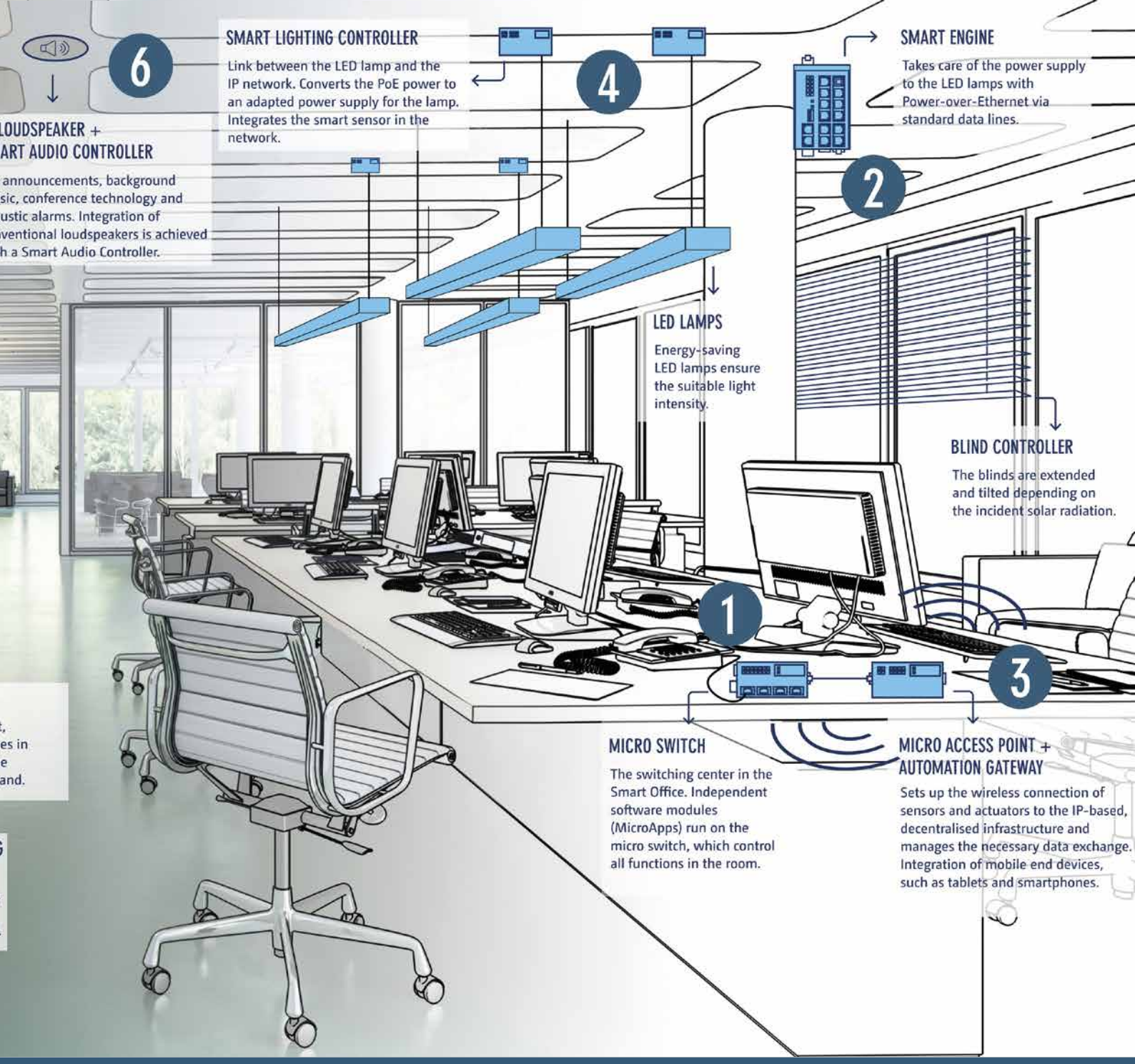
The genie of the Internet of Things is out of the bottle – we are beginning to imagine everything an intelligent building is capable of doing. If as soon as you check into the multi-storey car park the lift is called, if the lighting and heating are configured individually as soon as you get to the workplace. If the conference room is air-conditioned as soon as the calendar shows a meeting, if corridors that are not used remain dark – then technology becomes benefit. And optical fibers, circuit boards and memory chips become ‚energy saving' and there is ‚time for what is important'.

SMART OFFICE IS

- Economical
- Scalable
- Safe
- Flexible

MICROSENS Micro Switch with Wireless Automation Gateway

MICROSENS



MICROSENS SMART OFFICE

New generation IP-based building management

The decentralised Smart Office concept from MICROSENS brings network intelligence directly close to the application and thus achieves a hitherto unattained degree of performance and security. Fully IP-based, the concept uses the standard IT network infrastructure available in every office building and offers an open solution in compliance with standards. Communication between sensors, actuators and system management is achieved via secure, encrypted IP network protocols. With Power-over-Ethernet, the existing IP infrastructure is used for both controlling devices, as well as for their power supply. This means that lighting with energy-efficient LED lamps is also fully integrated in the overall concept. The solution is freely scalable and expandable. Existing rooms can be integrated according to demand and step by step. This enables smooth migration to modern building management. The Smart Office concept meets all prerequisites for a contemporary working environment and thus offers a considerably higher degree of convenience, security and efficiency than conventional building technology.

SMART OFFICE SYSTEM COMPONENTS

1

Micro-Switch

Micro Switches provide for the network connection of end devices, such as computers, IP telephones, printers or WiFi access points. They have long since developed from pure data distribution into intelligent, powerful control centers. Their high computing power allows them to take on additional and far-reaching functions in building automation. An example for this is the control and management of all technical office equipment, such as lighting, blinds, heating, air conditioning, network access for IT devices and telephones, as well as security technology.

2

Smart Engine

The smart engine takes care of the energy supply to the lamps with Power-over-Ethernet Plus. For this purpose, it uses suitable, standard data lines, as are also used for the IT infrastructure. The smart engine can be accommodated in a data processing cabinet or electrical control box, but also directly decentralized, e.g. installed in a suspended ceiling. The number of engines is determined by the scope and expansion of the lighting system.

3

Automation gateway

The automation gateway is responsible for integrating the existing automation installations and devices and manages the necessary data exchange. This even allows sensors from other completely separated systems like Homematic, EnOcean, KNX, IP500 and others to be integrated. Connection with the systems to be integrated can be both wired and wireless, which allows flexible, section-by-section integration without time-consuming installation.

4

5

Smart Lighting Controller + Smart Sensor

The Smart Lighting Controller represents the link between the LED lamp and the IP network and converts the PoE power to an adapted power supply for the lamp. Either integrated in the lamp housing or installed in close proximity to the lamp, it evaluates the sensor data directly on site. Special sensors close to the lamp acquire the environmental parameters and identify whether there are persons present in the room. A brightness and a temperature sensor are also integrated here.

6

Smart Audio Controller

The Smart Audio Controller easily and reliably integrates existing classical loudspeakers in the data network. The module converts the IP audio data to analog audio signals therefore offering particularly economical migration to IP technology. Whether background music or announcements and acoustic alarms to specifically address or warn people in buildings – the Smart Audio Controller implements the advantages of IP-based installations, also with classical loudspeakers. The use of IP-based audio systems, especially in connection with fiber optic cabling, raises the length restrictions and size restrictions of analog audio systems.

YOUR ADVANTAGES:

- Scalable room-by-room concept, requires no centralised planning or control
- Integration of lighting, shading, heating, air-conditioning, ventilation and public address in an interactive system, incl. control and monitoring
- Reduction of operating costs
- Optimisation of energy consumption, e.g. of up to 80% for lighting
- Reduced maintenance costs through anticipative identification of the service requirement

MICROSENS SMART OFFICE

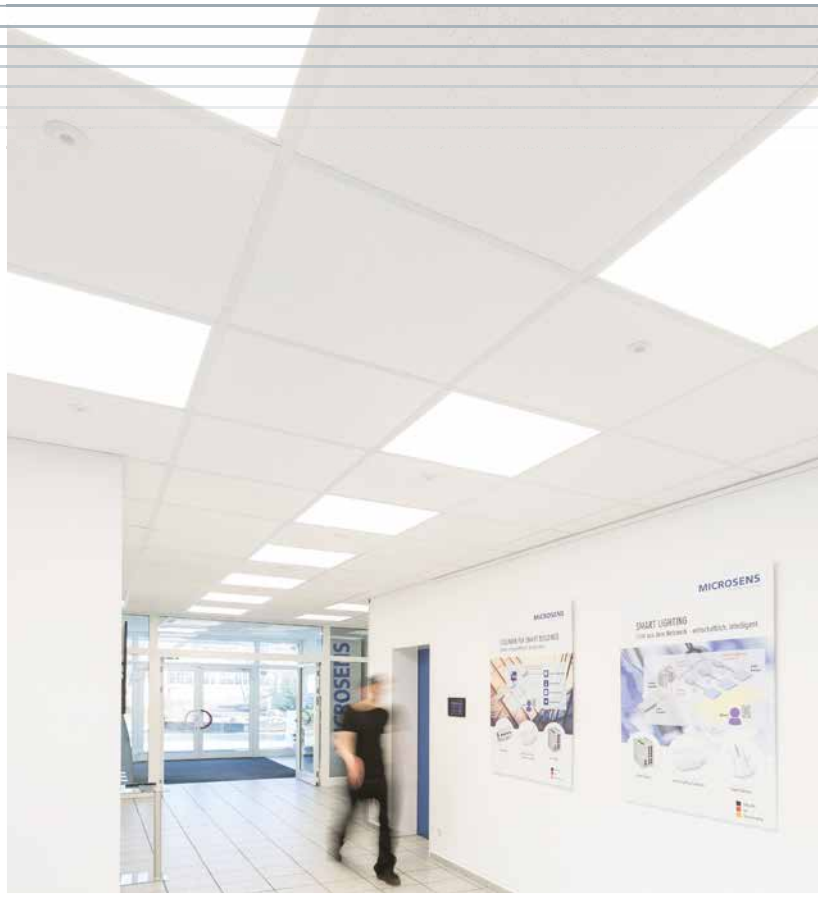
The IP-based building management solution

From the surveillance camera, admission control, lift control system through to heating/ventilation and air-conditioning: In modern office buildings intelligent systems communicate with clever things – provided they are networked together. It is exactly for this purpose that MICROSENS offers Smart Office building automation. This solution for the digital building is based on the standard IP protocol, is capable of modular expansion and is secure.

Considerable reduction in operating costs High profitability Enormous sustainability Greatest possil
Maximum scalability Considerable reduction in operating costs High profitability Enormous sustainabili
Top efficiency Maximum scalability Considerable reduction in operating costs High profitability Enormo
productivity Top efficiency Maximum scalability Considerable reduction in operating costs High profitab

MICROSENS IS KNOWN COMPETENCE ON THE SECTOR OF ACTIVE FIBER OPTIC SOLUTIONS

For over 20 years, MICROSENS has been offering active fiber optic components for company networks, manufacturing plants, the industry, and access networks. Development and processing „Made in Germany“ significantly contribute to product quality.



www.microsens.com/smart-office

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