



BOSCH

Invented for life



Building Integration System

Your platform for customized
security and safety management

One platform for everything

Efficient building management is becoming not only more important, but also a more complex challenge. Nowadays organizations use multiple systems to monitor and control their buildings, ranging from fire and intrusion alarm to access control, video surveillance and building automation systems.



Efficient but simple

Monitoring, control, administration and maintenance of all these systems can be a huge challenge because individual systems only serve individual purposes. To completely secure and manage a building, you need a number of functions – and if you want them all, they have to run alongside each other. This approach is not only inefficient, unreliable and expensive, but also difficult to upgrade when your requirements change.

A single system – but still flexible

This is where the Building Integration System (BIS) comes in. The idea is one solution that offers everything – combining different building management functions on one platform, and providing simple responses to difficult questions. But because every organization has unique building management requirements, the Building Integration System is modular. This means that, like with building blocks, you can add or remove single elements or create new combinations, which gives you maximum flexibility. This guarantees that you get the solution you need.



Automation Engine, Video Engine and Access Engine: combined to create a high-performance building management system.



Complete solution for integrated building management

No matter how comprehensive and complex your building management requirements are, the BIS responds flexibly and is also easy to use. The Building Integration System combines a number of technical systems: fire and intrusion alarm, video monitoring, access control and evacuation systems. All on one modular platform.

A modular system for greater flexibility

To perform optimally, a building management system must suit your particular needs.

But even more important: a good system should be able to cope with later changes. What you need today may turn out to be too little further down the road. And who wants to buy a whole new system just because the requirements have changed? This is why the Building Integration System is modular: different high-performance modules (engines) share a single platform and can be flexibly combined.

Automation Engine:

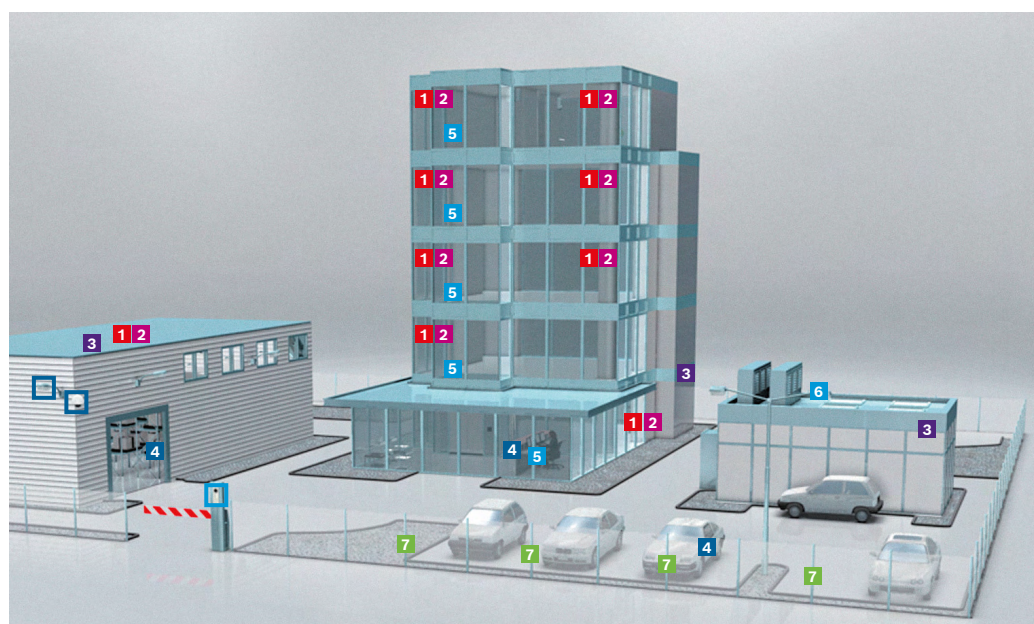
Control and monitoring of intrusion and fire alarm systems, public address and any OPC-compliant third party device, such as building automation

Video Engine:

Visual alarm verification and recording using Bosch or third party video systems

Access Engine:

Access control using Bosch and third party access control hardware



- 1 Fire detection systems
- 2 Intrusion systems
- 3 Video surveillance systems
- 4 Access control systems
- 5 Public address/evacuation
- 6 HVAC, lighting, blinds, IT monitoring
- 7 Fence and wall monitoring

Building management with maximum benefits

An optimal overview for maximum safety

It's only possible to protect something you can see. That's why the Building Integration System offers a complete overview of your organization with all subsystems, right down to showing the status of individual detectors.

This is a major prerequisite for promptly and appropriately responding to dangerous situations.

High scalability

The Building Integration System is a highly scalable solution that meets even the most demanding requirements. It is able to administer up to 200,00 cardholders per Access Modular Controller (AMC) and up to 10,000 readers and 4,000 cameras per server. This makes the system the ideal solution even for very large applications such as airports or metro stations. For globally operating enterprises, a system consisting of multiple servers can be designed.

Mobile client for fast reaction

The mobile client runs on Android and iOS and shows live updates of building alarms and their states (new, accepted, deleted) on your smart phone.

Open standards for no-problem cooperation

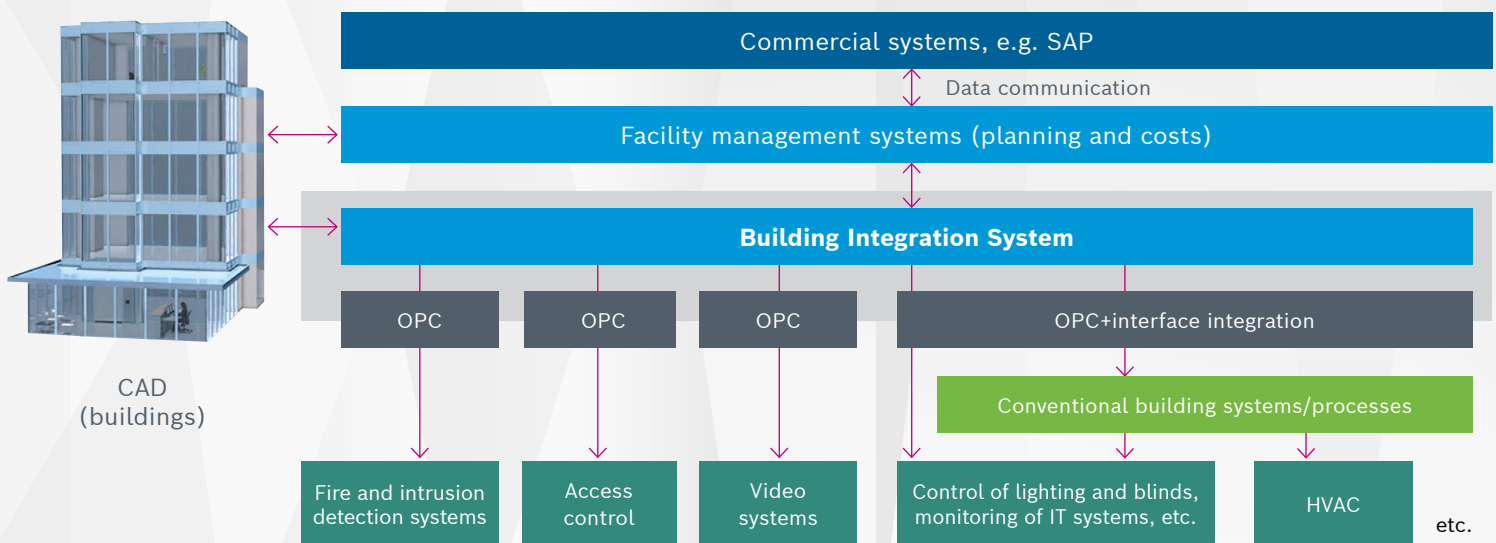
The Building Integration System works exclusively with tested open global IT standards such as Classic OPC and OPC UA, AutoCAD, HTML5, SQL and Windows - which makes it easy to integrate both third party security and building management systems.

This results in numerous synergies and optimal service. It doesn't require much to train future users. Your return on previous investments is extended and your future options remain open. Plus, you have a security management system that is not only extraordinarily efficient but is also compatible with existing structures down to the last detail.

Intelligent alarm management for appropriate reactions

In the event of danger, the system displays alarms based on location maps and other alarm documentation. Animated detector symbols and audible signals immediately indicate the source of the alarm. You can also define escalation scenarios to ensure immediate and appropriate responses.

Overview of the Building Integration System





Easy data integration for increased efficiency

Preexisting CAD data can be integrated without having to convert split diagrams. Subsystem configurations as well as personnel data from an HR or time management system can be directly imported – there's no need to reenter them in the Building Integration System. And because the system is OPC-compliant it interfaces with a range of standard field buses such as DALI, KNX, Modbus and BACnet.

Seamless documentation for retrospective security

All events and operator activities are securely recorded in a logbook that prevents post-event changes. This protects data from manipulation. Moreover, all configuration changes can be logged to achieve highest compliance with any regulation or standard. The logbook is both easy to use and flexible, due to advanced filter functions and the ability to export data in standard CSV format.



The Automation Engine

The efficient tool for comprehensive property security and monitoring of building automation systems



The larger the property, the more complex monitoring and control operations become. Simple building management systems are therefore essential for efficiently organizing these tasks.

The Automation Engine enables central management of both Bosch and third party fire and intrusion detection systems, all on one platform. In addition, this module

monitors automation systems for failure and can trigger automatically appropriate audio messages, e.g. for evacuation.

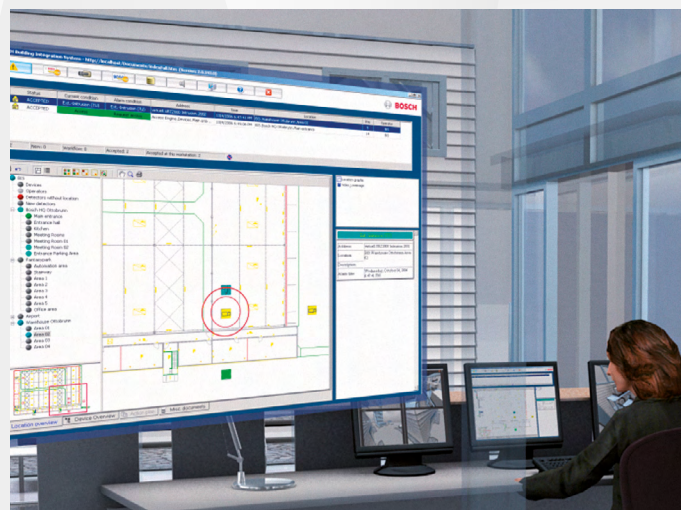
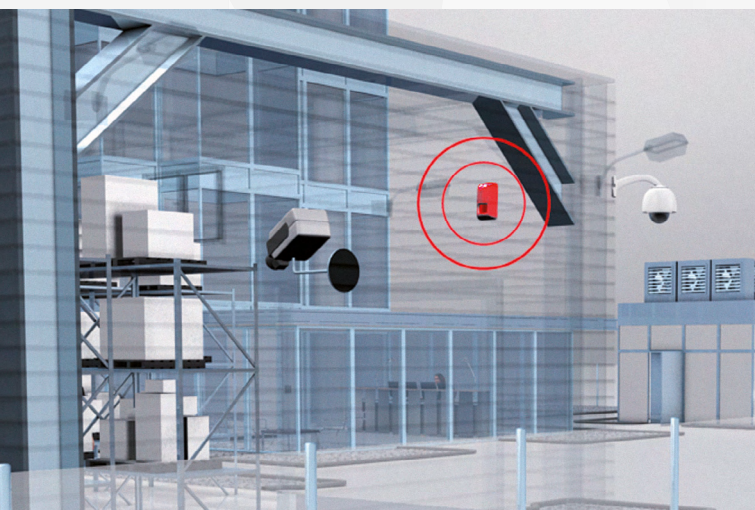
Location maps and alarm documentation provide detailed information and action plans (i.e. standard operating procedures).

And user-friendly operation translates into immediate and effective alarm management.

Act faster, help sooner

When it really matters, every second counts. With the Automation Engine the operator knows immediately what to do because all the required information is provided in realtime on his screen. The corresponding alarm documentation is centrally stored and precisely tailored for its intended purpose, also including workflows and location plans with animated alarm symbols.

For even greater efficiency, certain alarms or events can be assigned to specific user groups, thus enabling the system to manage different events concurrently.



The Video Engine

This module increases situational awareness and supports you in verifying alarms

Nobody has eyes in the back of their heads. Nor is it necessary: that's what the Video Engine is for – it helps you verifying alarms visually.

Video verification

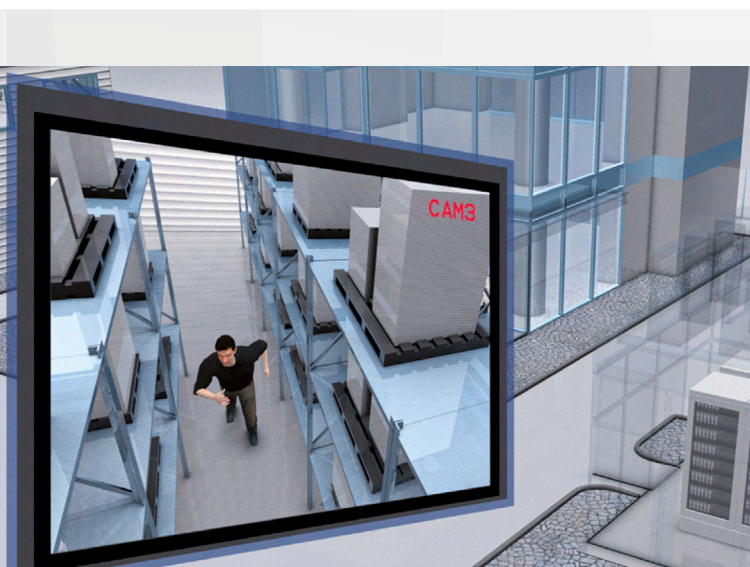
Video verification gives you more security. For example, you can install cameras at doors with high security requirements and integrate them to the Building Integration System via the Video Engine. When someone requests access at a door, a cardholder image pops up automatically and the Video Engine enables the operator to verify if the person at the door is identical to the card owner. This ensures that only authorized persons access designated areas.

Video alarm notification

Video alarm notification reduces false alarms. With the integration into the Building Integration System, cameras provide security operators with a live streaming image to remotely verify alarm events and respond appropriately. For example, they can immediately identify threats and misuse such as tailgating or discard events as false alarms.

Broad range of video devices

The BIS Video Engine is compatible with all Bosch video devices including cameras and recording solutions as well as with ONVIF compliant video devices for live viewing. Choose the device that best fits your needs.



Combination of the Automation Engine with the Video Engine:

- ▶ The system uses infrared to detect an intruder.
- ▶ An alarm is signalled on the security personnel's screen.
- ▶ Video can then be used to verify the alarm, permitting immediate action if required.

The Access Engine

Fully integrated access control management ranging from standard use to the most demanding individualized security solutions

It isn't appropriate to allow every employee to access all parts of a site, so an efficient access control system is indispensable in many buildings and organizations.

The Access Engine has been specially developed to satisfy even the most demanding expectations. Its modularity lets you systematically build the right solution to meet all your access control needs and flexibly scale it up as they grow.

User-friendly door management

In addition to simple access control management, the Access Engine provides user-friendly control of doors and barriers – with a clear overview on the user display that can be combined with video footage and intercom.

Having an overview enhances security

The door to the data center has been open too long, or an employee is being threatened at the rear entrance to the building. Both scenarios require immediate action.

When integrated into the Building Integration System, the Access Engine immediately displays such events

together with the appropriate action plan and video footage. This permits your personnel to respond without delay.

Meeting the most demanding requests

The Access Engine satisfies the most demanding security needs. A few examples:

- ▶ Central cardholder management for distributed sites
- ▶ Highest availability thanks to redundant 4-tier architecture
- ▶ Visitor management
- ▶ Carpark and elevator management
- ▶ Antipassback and access sequence control
- ▶ Guard tour management
- ▶ Biometric identification and verification

High level of safety thanks to threat level management

The threat level management enables you to proactively prepare for various high and low threat situations. You can define different threat levels such as evacuation or lockdown and change the behaviour of all doors within seconds.

The Access Engine for arming and disarming intrusion detection systems:

- ▶ To enter the premises, a person holds a card against the reader. Following successful verification, access is granted.
- ▶ After the card has been verified by the reader in the lift, the system determines that the person is only authorized to enter the fourth floor and consequently only permits that selection. Once they arrive and enter an area for which they are authorized, the security system there is disarmed.



Third party integrations

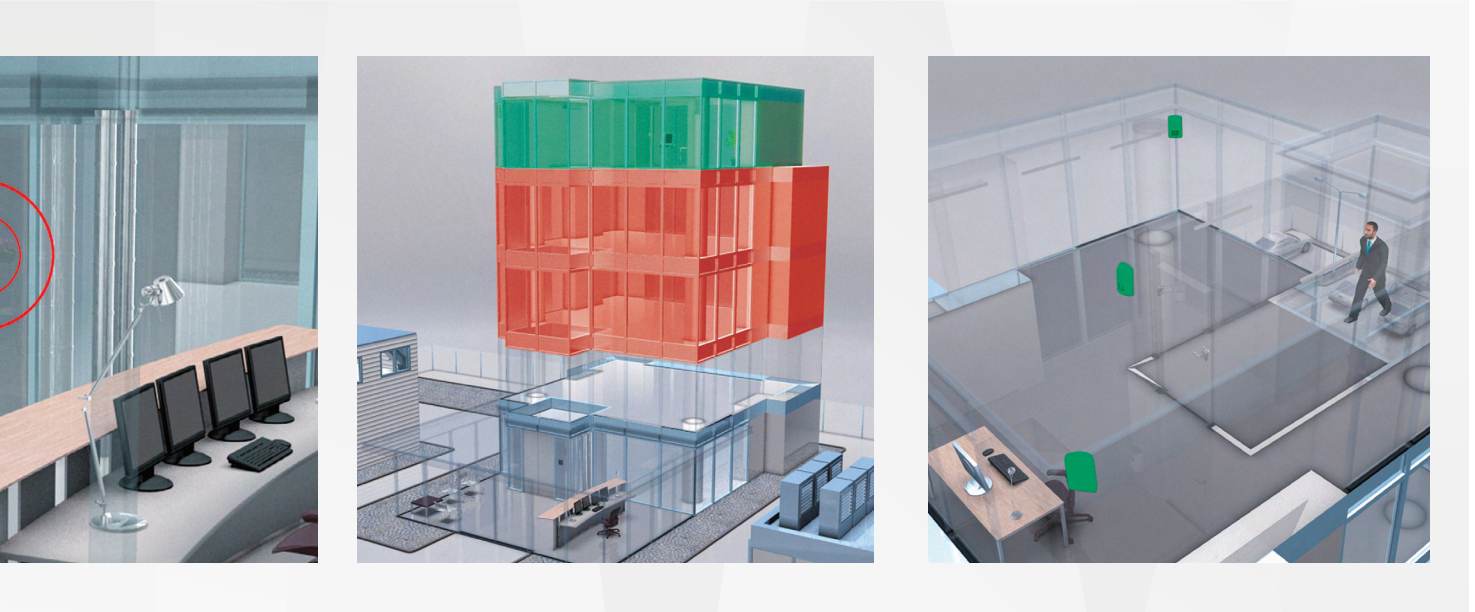
Integration of third party hardware and software for enhanced functionalities

The Building Integration System offers a “tool box” to allow integration with third party applications and subsystems via open standards (OPC, ONVIF, OSDP) and Software Development Kits (SDK). BIS manages third party systems on one single platform, such as video management or building automation.

The latest enhancements allow integration of most diverse third party applications with our access control system, examples ranging from visitor or identity management systems to time & attendance systems and automatic license plate recognition systems via SDKs.

Also, the Building Integration System is highly customizable starting with several default dashboards which can further be adapted via HTML5 and JavaScript.

More information, including a list of integrated partners, can be found on [our website](#).



The Building Integration System in practice

The Building Integration System offers a suitable solution for every requirement and is correspondingly versatile. The examples here are only some of the areas in which the system is now being used with success:



Commercial applications:

- ▶ Banks
- ▶ Office buildings
- ▶ Exhibition halls and conference centers
- ▶ Medical complexes
- ▶ Shopping malls and retail chains
- ▶ Server rooms

Industrial applications:

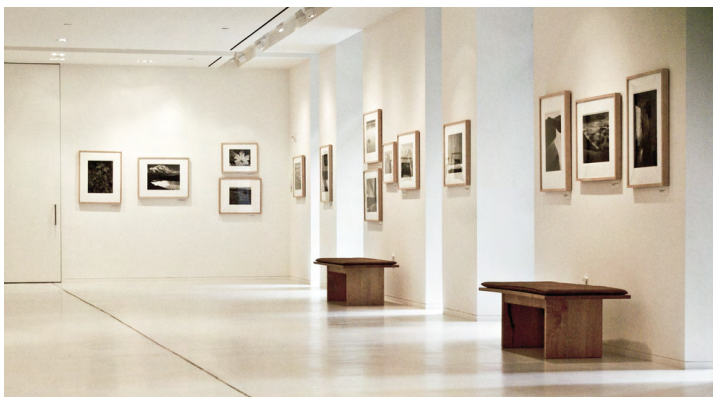
- ▶ Automotive industry
- ▶ Chemical industry
- ▶ Energy distribution
- ▶ Power plants
- ▶ Electronics manufacturer

Government and public institutions:

- ▶ Correctional facilities
- ▶ Government offices
- ▶ Museums
- ▶ University campuses
- ▶ Military sites

Transportation and logistics:

- ▶ Airports
- ▶ Train stations
- ▶ Warehouses and shipping facilities





Typical applications for the Building Integration System:

- ▶ Fire monitoring and alarms, with evacuation management including monitoring of escape routes and announcements
- ▶ Intrusion detection and alarms, with live video surveillance and analysis of archived footage
- ▶ Video monitoring with video-motion detection and central AutoDome control
- ▶ Access control for normal and high-security areas
- ▶ Parking lot management
- ▶ Door management with intercom, video monitoring and access control
- ▶ Elevator control with management of floor access privileges
- ▶ Perimeter fence or wall monitoring with video surveillance
- ▶ Guard tour system with corresponding alarm functionality
- ▶ Failure monitoring for vital systems and equipment
- ▶ Light and blind control in connection with access control



Bosch Security and Safety Systems

Protecting lives, buildings and assets is our aim. Our product portfolio includes video security, intrusion detection, fire detection and voice evacuation systems as well as access control and management systems. Professional audio and conference systems for communications of voice, sound and music complete the range.

Bosch Security and Safety Systems

To learn more about our product offering,
please visit www.boschsecurity.com

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