



## Building Integration System

Multiple applications: one platform,  
complete security



**BOSCH**

Invented for life

# A Natural Integrator



## Orientation:

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A building can contain a wide assortment of equipment for fire and intrusion detection and alarms, access control, video monitoring and building automation.

And when an organization has many buildings at different locations, monitoring and controlling all these systems poses a major challenge. Maintaining various isolated systems for these functions means inefficient management with extra work and costs.

The Building Integration System, comprising an innovative suite of enterprise monitoring and control software applications, overcomes these disadvantages. The components of this fully integrated solution share a common web server core and user interface. It is designed to provide comprehensive, responsible control in a wide range of environments including:

### Commercial applications

- ▶ Bank headquarters and branches
- ▶ Business office buildings
- ▶ Warehouses; exhibition halls and conference centers
- ▶ Multifacility medical complexes
- ▶ Retail chains, stores and malls

### Industrial applications

- ▶ Large-scale industrial sites
- ▶ Factories

### Government and public institutions

- ▶ Government offices
- ▶ Law enforcement facilities and penal institutions
- ▶ Museums
- ▶ University campuses

### Transport and Logistics

- ▶ Airports
- ▶ Train stations
- ▶ Many other indoor and outdoor applications

# Total Control for Integrated Building Management

The Building Integration System connects all data and systems. From security and access control to facility operating equipment and video management, it lets you forge a single, easy-to-use solution. The system is designed from the ground up to guarantee flexible, effective security and building management.

## **Benefits of the Building Integration System:**

- ▶ Enhanced security and access control, backed by outstanding user-friendliness
- ▶ Simple integration of third-party and custom applications and easy customization to meet your requirements
- ▶ Smooth integration with diverse system architectures and networks, being an open system based on IT standards (OPC, HTML, CAD data and Windows operating systems)
- ▶ Embedded support for CAD and CAD-compatible/convertible files
- ▶ To support the operator, all messages are displayed with the same “look and feel”, regardless of the security system source (CCTV, intrusion, fire, access control).
- ▶ Very easy configuration and installation



# The Future of Building Management



The Building Integration System is a web-server application based on a truly open protocol and nonproprietary industry standards. It owes its enormous range of capabilities and outstanding flexibility to its open system architecture. From installation to live operation, you save time and money.

You can view multiple applications in a shared, flexibly customizable interface. Fully bidirectional communication between the Building Integration System and subsystems ensures total interconnectivity for reliable control of all hardware. Standard interfaces let you maximize the benefits of already-installed Bosch security and fire systems while smoothly integrating third-party products. This extends your return on existing investments, lets you keep your future options open, and speeds operator training.

All application-related and other information is stored in a single, unified database. This enables automatic data transfer between intrusion, access and video management systems – while making sure you manage your facility based on sound facts at all times.

## Bringing It All Together

The Building Integration System monitors and controls all functions that use network connections within a building. This lets you boost cost-effectiveness and operational efficiency by combining any of a wide range of functions including:

- ▶ Fire monitoring and alarms
- ▶ Intrusion monitoring and alarms
- ▶ Video systems (CCTV)
- ▶ Automated access control
- ▶ Perimeter security monitoring
- ▶ Gate/barrier and parking management
- ▶ Dynamic alarm and image mapping
- ▶ Emergency exit control
- ▶ Intercoms
- ▶ Public address systems
- ▶ Video management and personnel verification systems
- ▶ Personnel database and authorization
- ▶ Elevator control
- ▶ etc.

# A Modular Platform for Complete Building Management and Security

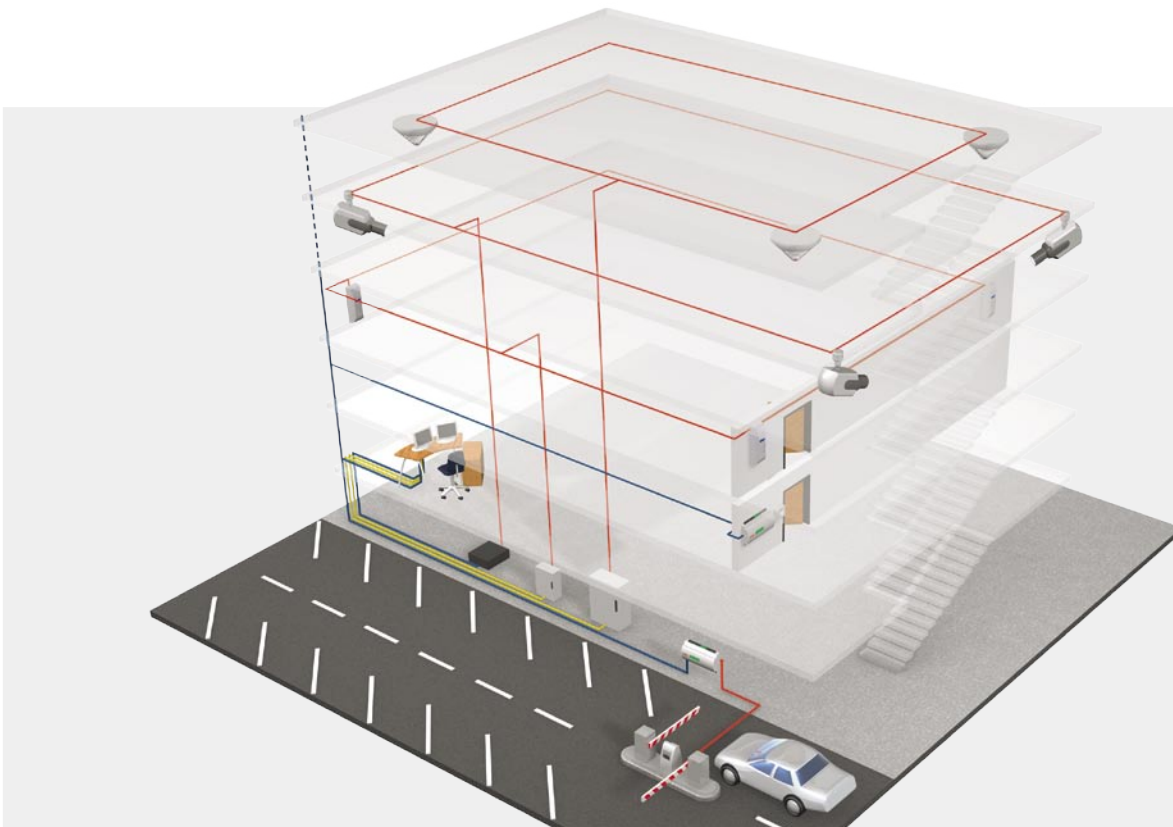
The Building Integration System serves as the hub for integrating all vital building and enterprise management functions. Its modularity also ensures easy incorporation of new components, so you always have a single platform for all functions. This lets you build a security infrastructure step-by-step, starting with just one component, to exactly match your organization's needs.

The modules – Automation Engine, Access Engine, Video Engine – are all perfectly harmonized to work together as a winning team.

The individual Engines are already powerful as standalone applications:

- ▶ The **Automation Engine** helps you control all your intrusion and fire systems and monitor all vital building functions.
- ▶ Sensitive areas can be clearly viewed with the **Video Engine**, which features various customization options.
- ▶ The **Access Engine**, in conjunction with the **Access Modular Controller**, enables seamless access control with identification, authorization checks and data storage.

And when combined, they form a sophisticated, highly integrated system that optimizes your benefits.



Typical applications in an office building

# The System That Grows with Your Needs



The Building Integration System provides you with a complete overview of all connected subsystems, all panels and even the status of individual detectors. Your organizational structure is optimally modeled to ensure that messages and alarms are properly responded to and acknowledged.

It's also easy to create multiple divisions with customized, web-server-based views for each one – for example, if parts of a building are leased out, tenants can set up their own access control systems and receive their own messages and reports.

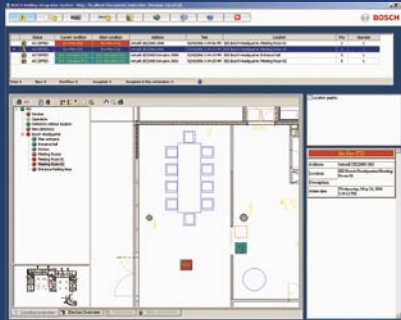
## **Versatile Alarm Management**

All alarms are consistently displayed with location maps, action plans, animated icons and audible notification. You are also able to define escalation scenarios, for instance if an operator doesn't respond immediately to an alarm.

## **Easily Configurable Data Import and Interfaces**

Existing CAD data can be integrated without having to convert or split diagrams. Subsystem configurations as well as personnel data from a HR system can be directly imported – there's no need to reenter them in the Building Integration System.

BIS is OPC-compliant and supports interfacing with a wide range of standard field buses such as EIB, LON, Profibus and BACnet. Many third-party suppliers around the world already provide OPC servers for these applications.

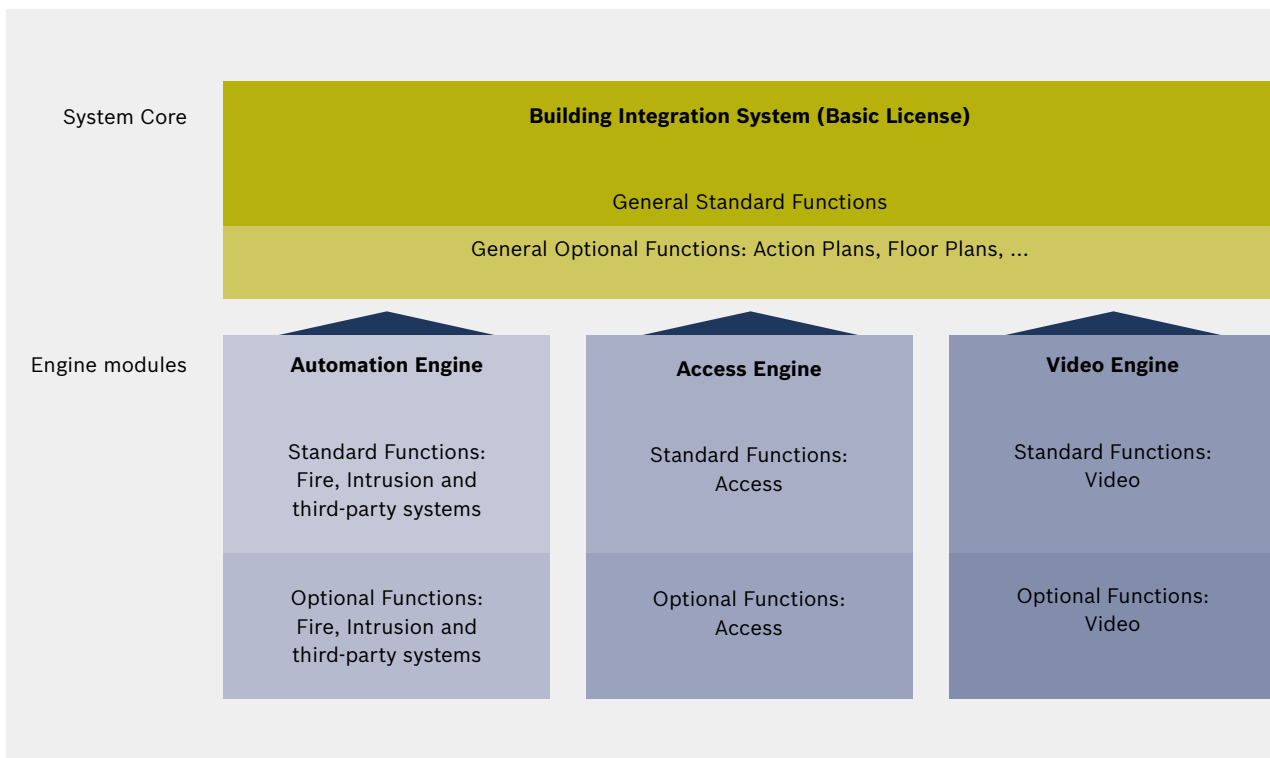


Outstanding Visualization and Control

### Secure Reporting and Data Storage

All events and operator actions are securely stored in a logbook that prevents after-the-fact changes. This protects data from manipulation. The enhanced logbook includes advanced filter functions and has been optimized to keep archives small. Data is exported in standard CSV format for even more flexible reporting.

Alarms are directly linked to the relevant camera images in archives, so these can be easily retrieved later. Normally incompatible images from different video subsystems can also be combined.



Building Integration System – a modular structure

## The Automation Engine

The efficient tool for comprehensively managing and controlling property security and building automation technology

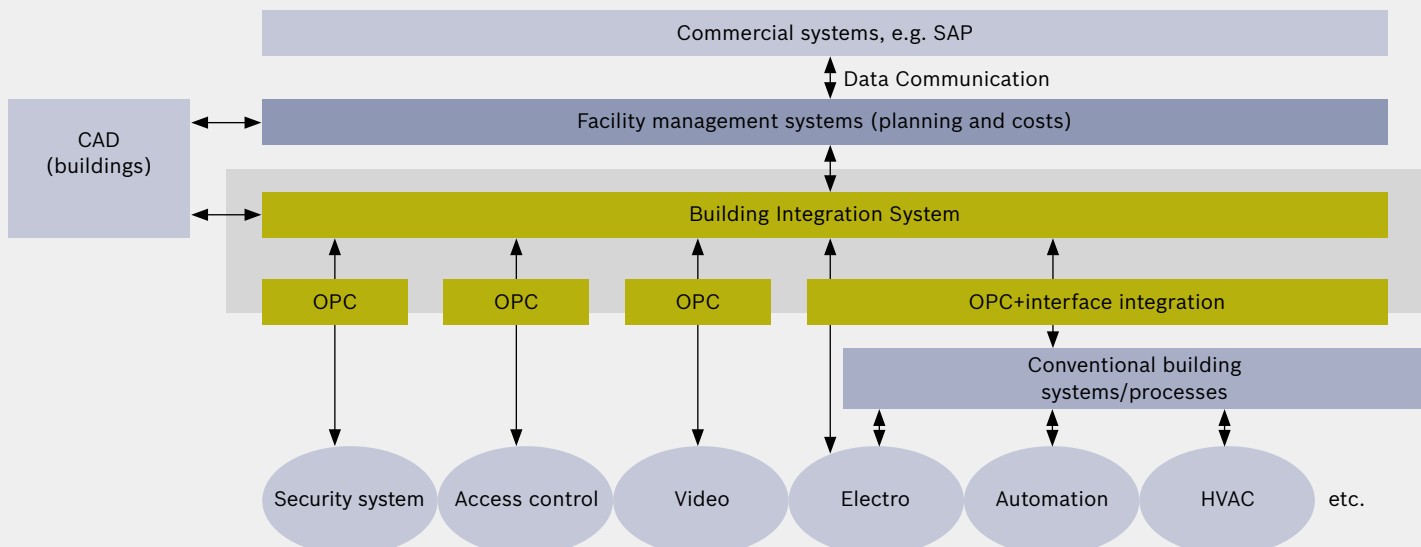
The larger the property, the more complex monitoring and control operations become. Simple, clearly structured management is therefore essential for efficiently organizing these tasks.

The Automation Engine enables central management of both Bosch and third-party fire and intrusion systems. All property information flows into a single system. Individual building systems are controlled from a single point, and all information is intelligently networked. This makes it easy to monitor a wide variety of subsystems from different manufacturers, including public address, intercom or HVAC systems.



### Flexible Security and Control

You can freely customize the Automation Engine's interface to suit your monitoring and control requirements. This eliminates the need for time-consuming conversion and recreation of data or redundant data storage. Workflows benefit greatly as a result. You can extend the system as required at any time.







### Installer Benefits

- ▶ The interface of the Automation Engine can be flexibly configured.
- ▶ Existing CAD data is easy to integrate.
- ▶ Features for maintenance of connected subsystems are included.
- ▶ Integration of third-party equipment is simplified by OPC enhancement and incremental browsing.
- ▶ A new approach for designing configurations reduces training requirements and speeds up the process.

### Faster Responses, Better Support

Action plans for dealing with danger situations are stored in the system. In an emergency, the appropriate action plan is promptly activated to guide the operator, while taking all available data into account. Additional information such as location plans can be displayed, making it easy to provide fast, focused assistance.

In critical situations, specific CAD layers can be displayed – for instance, showing where flammable liquids are stored if there is a fire alarm. This helps the operator respond appropriately.

### Example:

A fire on the 17th floor of an office building is detected by the fire alarm system and reported to the Building Integration System. Via the connected public address system, the floor's occupants are automatically requested to leave it. At the same time, automatic printout of the floor plans begins for the fire department. The security staff open the main gate for the arriving firefighters simply by clicking a button in the stored action plan. The Building Integration System automatically triggers the integrated access control to open the relevant emergency doors. All actions are controlled from one workstation in the same user interface.



## The Video Engine

### Simple Integration of Sophisticated Video Technology

Building surveillance works best when you do it in person and with your own two eyes. But no one can possibly keep track of everything all the time. That's why Bosch has developed the Video Engine, which delivers a whole new dimension of performance as the central component for integrating video subsystems.

The Video Engine lets you incorporate both Bosch and third-party video equipment. And its advanced modularity and compatibility with other equipment allows you to smoothly scale up your video systems as your requirements grow. This state-of-the-art video technology enhances your security platform – especially as part of the Building Integration System.

### A Powerful Module

The Video Engine seamlessly fits into the Building Integration System, adding a wide range of valuable capabilities:

Various display options provide more possibilities and flexibility for mixing and displaying different video sources on the same screen. A virtual guard tour and additional local archive features provide enhanced security. To view live or archived images, simply click a camera's icon or select it from a convenient context-sensitive device menu.

An external Pan/Tilt/Zoom (PTZ) keyboard supports simultaneous control of auto dome cameras connected to Bosch's DiBos8, Divar and Videojet/VIP video systems. Standard cameras connected to DiBos and Divar can be used for motion detection of intruders.

The Video Engine harmonizes excellently with the other Building Integration modules and permits flexible combinations with the Access and Automation Engines. This enables enhanced solutions such as access video verification and monitoring of escape routes in the event of a fire alarm.

### Example:

The Building Integration System is used to monitor a large apartment complex consisting of several high-rises and an underground parking facility. One night, the system detects activity in the stairwell of the parking facility. It sends live images to the monitoring center, where they are automatically saved by the connected DVR system. At the same time, a message appears to report a malfunction in the HVAC system. An appropriate action plan is automatically displayed, instructing the Building Integration System operator to inform the responsible technician.



### Installer Benefits

- ▶ CAD location plans containing camera icons are easy to integrate.
- ▶ Virtual digital matrix switches with senders and receivers support Bosch VideoJet IP. This permits flexible implementation of video walls with less wiring.
- ▶ Easy configuration, thanks to an integrated remote configuration tool for Bosch Allegiant, Videojet and DiBos.



## The Access Engine

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.

### Unbeatable Performance and Functionality

Access alarms and events within the building can be immediately visualized using the common Building Integration System platform and its sophisticated display features. Existing master data can be easily migrated using a flexible import/export interface. A wide range of peripheral devices is available, including various card readers and advanced access controllers.

### Example:

A new employee is assigned cardholder privileges in the SAP human resources system. The data is automatically imported overnight to the Access Engine via the import/export interface. The next morning, the operator adds the appropriate access authorizations and a photograph. He then uses the connected card personalization system to print out the new badge. The whole process of adding a new employee takes only a couple of minutes.



### Greater Than the Sum of Its Possibilities

Additional capabilities are available to expand your stand-alone access control system and create an integrated security solution.

Existing access hardware infrastructure can be used as a state-of-the-art guard tour system or the standard PIN feature as a duress code (useful whenever the taking of hostages might be a risk, for example in banks, prisons and other highly secured areas). And these are only some of the possibilities.

Parking lot management, elevator control and floor authorizations, mantrap control, visitor management and other advanced features round out the access control system.

But the main benefits result from being part of the Building Integration System. Immediate display of access control alarms along with all relevant information and the ability to

combine access control with video functionality open up new dimensions in security solutions.

### Video Verification

You can raise the security level of your access control system by connecting Bosch or third-party video systems such as DVRs or IP cameras via the Video Engine module. Readers can be set to video verification mode: swiping a card or badge then doesn't open the door right away. Instead, it submits a request to be allowed in, which appears as a message on the operator's screen. Based on the information in the database, the operator can decide whether to open the door. This minimizes the chance of some one entering an area with a stolen ID card.

Data on individuals is often already available in one or more corporate databases. The import/export interface lets you move this data to the Access Engine's database instead of re-entering it.



### Installer Benefits

- ▶ A wide range of predefined, self-explanatory door models makes it easy to configure the Access Engine with single-click selection of the door type.
- ▶ A default action plan template for video verification comes with the software; all you need to do is adjust the settings for your video sources.
- ▶ An import/export interface facilitates installation and maintenance. The formats are easy to adjust for compatibility.

## Access Modular Controller

### A Synthesis of Superior Design and Functionality

The Access Modular Controller (AMC) is a state-of-the-art access control device for use with the Access Engine. Capable of operating up to four doors, this integrated “all-in-one” solution is unique in its price range. It combines extensive functionality, small size and low weight with an attractive design. Its modularity lets you easily add expansion modules and a wide range of readers to build the right solution for your requirements.

This controller offers scalable storage capacity to accommodate systems of any size. It also features a compact flash memory that considerably extends its storage capacity, plus a unique display for status information. An integrated 10/100 Ethernet interface speeds communication between the Access Modular Controller and the Access Engine without the need for any additional devices.

The AMC controller family is rounded out by I/O expansion modules. These allow easy extension of control and monitoring functionality as well as elevator control or easy-to-use intrusion detection features.



### Installer Benefits

- ▶ The controller is also extremely simple to install, due to its small size and the logical positions of the connectors.
- ▶ Rail-mountable for hassle-free installation in standard racks
- ▶ Firmware upgrades are easy to download via network or a direct cable connection without opening the cover.



## A New Level of Building Management and Security

Step up to the Building Integration System: a seamless integrated solution from Bosch that's ideal for a wide range of uses and environments. You can use it to control any function that uses network connections of any type. From security and access control across facility operating equipment and video management, it brings together all the threads and places them securely in your hands. The Building Integration System uses open industry standards to effortlessly integrate third-party and custom applications. It also excels with easy configuration and installation.

### **The Automation Engine – for Comprehensive Management**

- ▶ The efficient tool for comprehensive management of fire and intrusion systems
- ▶ Monitoring of various third-party subsystems
- ▶ Automatically activated action plans to guide the operator in danger situations

### **The Video Engine – for Optimum Surveillance**

- ▶ Monitoring of sensitive areas by cameras
- ▶ Various user-definable display options
- ▶ Use of both Bosch and third-party video equipment

### **The Access Engine – for Seamless Access Control**

- ▶ Reliable identification and authorization checks
- ▶ Immediate visualization of access alarms and events
- ▶ Compatible with a wide range of peripheral devices

Bosch Security Systems has created the Building Integration System based on its over 70 years of experience delivering premium security systems. Look to Bosch for comprehensive, integrated solutions that answer your present enterprise management needs while anticipating your future requirements.

## **Tradition of quality and innovation**

For over 100 years, the Bosch name has stood for quality and reliability. Bosch Security Systems proudly offers a wide range of fire, intrusion, CCTV, management and communication systems and components to help you find the solution for any application. We are the global supplier of choice for innovative technology backed by the highest level of service and support. When you need solutions you can rely on, choose Bosch.

### **Bosch Security Systems**

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Printed in Germany | 06/06 | Printer  
MS-OT-en-01\_F01U517821\_01

