Access Management System V1.0

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Invented for life

▶ Stand-alone deployment, with its own map viewer, or as an integral part of BVMS

▶ Combines high-end Access Engine features, performance and availability, with simple installation

▶ Simple licensing with three license bundles: Lite, Plus and Professional

▶ API for integration with third-party applications

▶ Support for the latest and safest operating systems: Windows Server 2016, Windows 10 and SQL Server 2017

Access Management System (AMS) is an access control system for stand-alone application or for integration with the Bosch Video Management System (BVMS).

- As a stand-alone system it features a simple-to-use map viewer for a rapid assessment of all the devices and entrances on the site.
- As an integrated system it allows the BVMS operator to perform video-based ID verification at entrances.

AMS uses the core of our access control flagship Access Engine to offer similar availability, performance and feature set, and yet is considerably faster to install and configure.

The existing portfolio of Bosch access control devices can be easily scanned and integrated.

Data privacy and IT security is state-of-the-art in order to comply with the latest data-protection regulations in the EU.

System overview

Access Management Server:
The server is the main component for processing all data. It coordinates the activities of all the hardware and software components described below.

Master Access Controller (MAC):
The MAC is an additional security layer to increase system availability. It holds its own database to exchange information between AMCs, even if the main server or the network is down.

Access Modular Controller (AMC):
The AMC is a robust and reliable field controller to connect to up to 8 doors with readers and door strikes. With its large on-board memory the AMC can make autonomous decisions and store hundreds of thousands of access events, regardless of network interruptions.

Access Management Database
The SQL server holds all master data (cardholder, cards, authorizations, schedules, etc.) and also all access events. The latest version provides encryption to protect personal information from misuse or theft.

Access Management Dialog Manager
The Dialog Manager is the main user interface for configuring the system, and for collecting and maintaining access-related information. In particular its personnel dialogs are used for enrolling new cardholders, and maintaining their access authorizations and credentials.

Access Management Map View
The map view is a simple-to-use application to show door situation of the building in one glance. It shows door, tamper or malfunction alarms and allows to send commands directly from the map.

Access Management BVMS Interface:
The seamless integration into BVMS now allows video verification of cardholders from the BVMS operator client: a person requesting access with a valid card can be manually verified through camera live stream and the cardholder's photo from the database.
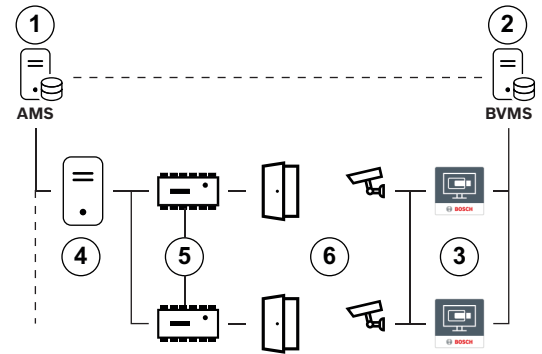
Access Management Web Interface:
The web interface shows an overview of cardholders (virtual tableau), visitors (with alerts for overdue departures), and available capacity in parking lots.

Access Management SDK:
This SDK facilitates the integration of 3rd party systems with AMS, for instance an Identity Management or Visitor Management system. A particular advantage is its ability to re-use 3rd party integrations initially written for BIS Access Engine.

Topology diagrams
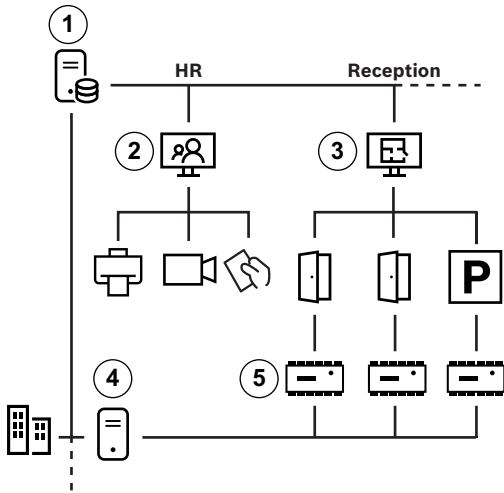The following diagrams illustrate AMS configurations with and without BVMS

Stand-Alone topology

(1)   AMS server

(2)   Client workstation for enrollment

(3)   Client workstation for access control

(4)   MACs

(5)   AMCs

BVMS Integration

(1)   AMS server

(2)   BVMS management server

(3)   Client workstation for access control

(4)   MACs

(5)   AMCs

(6)   Entrances with cameras

Functions

- Registration of new cardholders:
    - Use fully customizable enrollment dialogs to streamline the process of cardholder enrollment.
    - Capture both conventional and biometric characteristics, including photos and signatures.
    - Design and produce physical credentials.
    - Take advantage of dialogs for the mass import of stored personnel data.
- Assigning of access authorizations:
    - Collect access authorizations into reusable profiles, and assign these to predefined or customized personnel types.
- Door functions:
    - Use a comprehensive set of template door models, including elevators and parking lots, to accelerate the configuration phase of your project.
    - Office mode: unlock doors for free access during office or shop hours.
    - Combat theft and security threats with random screening of cardholders.
    - Verify cardholder identity with biometric checks at entrances, and with additional video confirmation powered by BVMS.
    - Use the SimonsVoss SmartIntego technology to enhance your system with card-programmable remote online doors, as commonly used in hotels, healthcare, offices and educational establishments.
- Reporting:
    - Take advantage of a large number of predefined template reports.
- Guard Tours and patrols:
    - Define up to 200 guard tours, and monitor up to 8 patrols simultaneously.

- Monitoring by web interface
  - Display customizable summaries of employees and visitors on site.
  - Monitor visiting times, including overstayed visits.
  - Monitor the number of available parking spaces.
- Alarm Monitor, Command & Control:
  - Use the Map View to keep control of large numbers of entrances simultaneously.
  - Use the Map View to monitor incoming alarms and alerts in real time.
- BVMS Integration:
  - Use AMS to increase the coverage of the Bosch Video Management System (BVMS) to include video verification at entrances.

Installation/configuration notes

The following tables illustrate hardware and software requirements for running AMS.

Server	
Supported operating systems. Installations on other operating systems may succeed, but are entirely without warranty.	• Windows Server 2016 (64 bit, Standard, Datacenter) • **Note:** The default database delivered with this system is SQL Server 2017 Express edition with advanced services
Minimum hardware requirements	• Intel i5 processor with at least 4 physical cores • 8 GB RAM (32 GB recommended) • 200 GB of free hard disk space (SSD disks recommended) • Graphics adapter with • 256 MB RAM • A resolution of 1280x1024 • At least 32 k colors • 1 Gbit/s Ethernet card • A free USB port or network share for installation files

Client	
Supported operating systems. Installations on other operating systems may succeed, but are entirely without warranty.	• Windows 10, version 1803 (LTSB, LTSC)
Minimum hardware requirements	• Intel i5 or higher • 8 GB RAM (16 GB recommended) • 20 GB of free hard disk space • Graphics adapter with • 256 MB RAM • A resolution of 1920x1080 • At least 32 k colors • DirectX® 11 • 1 Gbit/s Ethernet card

Client	
	• A free USB port or network share for installation files

MAC server	
Minimum hardware requirements	• Intel i5 or higher • 8 GB RAM (16 GB recommended) • 20 GB of free hard disk space • Graphics adapter with • 256 MB RAM • A resolution of 1280x1024 • At least 32 k colors • 1 Gbit/s Ethernet card

Technical specifications

The following tables specify the dimensions of an AMS access control system from two aspects:
- As per the respective license bundle: **LITE**, **PLUS** or **PRO**.
- As a maximum, if the necessary licenses are purchased.

License bundle LITE

LITE	Licensed number	Maximum number
Number of doors	16	144
Number of cards:	1000	200,000
Number of concurrent clients:	1	2
Number of MACs	1	1
Number of AMCs	Maximum 125 per MAC	
Number of authorizations	Maximum 1024 per MAC	
Number of guard tours	200	
SDK available	✔	
BVMS integration available	✔	
SMA years included	1	

License bundle PLUS

PLUS	Licensed number	Maximum number
Number of doors	32	512
Number of cards:	2000	200,000
Number of concurrent clients:	1	5
Number of MACs	3	10
Number of AMCs	Maximum 125 per MAC	
Number of authorizations	Maximum 1024 per MAC	
Number of guard tours	200	
SDK available	✔	

PLUS	Licensed number	Maximum number
BVMS integration available		✔
SMA years included		1

License bundle PRO

PRO	Licensed number	Maximum number
Number of doors	32	10,000
Number of cards:	5000	200,000
Number of concurrent clients:	1	40
Number of MACs	5	40
Number of AMCs	Maximum 125 per MAC	
Number of authorizations	Maximum 1024 per MAC	
Number of guard tours	200	
SDK available	✔	
BVMS integration available	✔	
SMA years included	1	

Languages of the user interface
- AR: Arabic
- DE: German
- EN: English
- ES: Spanish
- FR: French
- HU: Hungarian
- NL: Dutch
- PL: Polish
- PT: Portuguese
- RU: Russian
- TR: Turkish
- ZH-CN: Chinese (simplified)
- ZH-TW: Chinese (traditional)

Hardware devices supported
- The Bosch AMC2 family of access controllers.
  See corresponding datasheets in the product catalogs at https://www.boschsecurity.com
- Bosch AMC2 extension boards.
  See corresponding datasheets in the product catalogs at https://www.boschsecurity.com
- Bosch access readers and enrollment readers.
  See corresponding datasheets in the product catalogs at https://www.boschsecurity.com
- SimonsVoss SmartIntego remote online door components.
- Signotec signature pad.

Ordering information

AMS-BASE-LITE10 Lite license
Basic license LITE
Order number **AMS-BASE-LITE10**

AMS-BASE-PLUS10 Plus license
Basic license PLUS
Order number **AMS-BASE-PLUS10**

AMS-BASE-PRO10 Pro license
Basic license PRO
Order number **AMS-BASE-PRO10**

AMS-XCLI-1V10 License for 1 operator client
License for 1 operator client
Order number **AMS-XCLI-1V10**

AMS-XCLI-5V10 License for 5 operator clients
AMS-XCLI-5V10 License for 5 operator clients
Order number **AMS-XCLI-5V10**

AMS-XCRD-100V10 License for 100 ID cards
License for 100 ID cards
Order number **AMS-XCRD-100V10**

AMS-XCRD-10KV10 License for 10.000 ID cards
License for 10,000 ID cards
Order number **AMS-XCRD-10KV10**

AMS-XCRD-1KV10 License for 1.000 ID cards
License for 1000 ID cards
Order number **AMS-XCRD-1KV10**

AMS-XCRD-50KV10 License for 50.000 ID cards
License for 50,000 ID cards
Order number **AMS-XCRD-50KV10**

AMS-XDRS-128V10 License for 128 doors
License for 128 doors
Order number **AMS-XDRS-128V10**

AMS-XDRS-32V10 License for 32 doors
License for 32 doors
Order number **AMS-XDRS-32V10**

AMS-XDRS-512V10 License for 512 doors
License for 512 doors
Order number **AMS-XDRS-512V10**

AMS-XMAC-1V10 License for 1 MAC server
License for 1 MAC server
Order number **AMS-XMAC-1V10**

AMS-XMAC-5V10 License for 5 MAC servers
License for 5 MAC servers
Order number **AMS-XMAC-5V10**

AMS-XROD-25V10 License for 25 remote online doors
License for 25 remote online doors
Order number **AMS-XROD-25V10**

Software Options

AMS-BUPG-TOPLUS Upgrade from Lite to Plus
Upgrade from LITE to PLUS
Order number **AMS-BUPG-TOPLUS**

AMS-BUPG-TOPRO License from Plus to Pro
License from PLUS to PRO
Order number **AMS-BUPG-TOPRO**