

BVMS Professional 10.1



- ▶ Reduced total costs of ownership - manage up to 2000 cameras with a single server to reduce installation and operating costs.
- ▶ Embedded resilience - keep operations up and running even when multiple system components fail.
- ▶ Bosch video at its best - the best user-experience combining Bosch cameras with BVMS.
- ▶ Integration - integrate third-party cameras, storage and further systems into BVMS.
- ▶ IT environments and data security - benefit from full IT compatibility from installation to day-to-day management in a secure way.

BVMS Professional is a unique IP video security solution that provides seamless management of digital video, audio, and data across any IP network. It provides the best video management system to go with Bosch video surveillance devices, leveraging the unique capabilities of Bosch cameras and recording solutions. It nevertheless offers interfaces and standards to integrate other systems and manufacturers.

The system is equipped with a unique embedded resilience. It keeps operations up and running even when both the management server and recording server(s) fail.

Edge Video Content Analysis and the unmatched recording technology, managing up to 2000 cameras with a single recording server, dramatically reduces the total costs of ownership.

The software is provided as an e-license via e-mail.

Certifications and approvals

General Data Protection Regulation

The General Data Protection Regulation (GDPR) is enforced on the 25th of May 2018. As a regulation it will be directly applicable to all EU member states without the need for national implementing legislation. As information captured, processed and

stored by video surveillance systems is classified as "sensitive" the GDPR will cause significant impact on the video surveillance installations throughout Europe. BVMS includes the required functionality to ensure an organization can be GDPR compliant.

Installation/configuration notes

The BVMS system design guide is published on the following website:

[Bosch Building Technologies Knowledge Base](#).

The system design guide summarizes the BVMS design details, and serves as a guide to planning a BVMS system with Bosch cameras and storage. It focuses on BVMS combined with the VRM.

To get started, read the following article on the Bosch Security & Safety community website:

[BVMS - Quick start overview](#)

BVMS Enterprise

Multiple BVMS Lite, Plus, Professional or DIVAR IP systems can be combined into one BVMS Enterprise System.

Cameras within system context	200000
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Cameras per operator	10000
Sub-systems	Between 10 sub-systems with 1000 cameras per system or 100 sub-systems with 100 cameras per system.

Software assurance

The complexity of security systems has increased significantly over the last couple of years. At the same time, you are still relying on your system to mitigate security risks. With Bosch Software Assurance, you can relax knowing you can always approach us for help to ensure your system keeps on running. You can find the terms and conditions of Bosch Software Assurance on the following website:
[About Bosch Software Assurance](#)

Technical specifications

The release notes give a detailed overview on the changes that are implemented, compared to the previous BVMS version. The architects and engineering specifications specify in detail what the system is capable of. Both documents can be found on the following web page:
[Bosch Building Technologies Knowledge Base](#)

System limits

i Notice

The system limits are based on the hardware recommendations.

Maximum number of workstations	100
Maximum number of IP devices	2000 (of which up to 128 decoders)
Maximum number of live and playback sites	9999
Maximum number of intrusion panels	20 (512 detectors per panel) or 40 (256 detectors per panel)
Maximum number of DVRs	50
Maximum number of VRMs	125
Maximum number of sustained events (logbook) / sec	1000
Maximum number of sustained events (without logbook) / sec	2500
Maximum peak event load / sec (within 60 minutes)	5000
Maximum number of events / sec from ONVIF cameras	500

Logbook size	4GB
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i Notice

The logbook size can be increased by upgrading the Microsoft SQL Server Express edition included in the BVMS installation package.

Languages

Component	Languages
Quick installation guide	English, French, German, Simplified Chinese and Spanish
Configuration manual	English, German, Dutch, Italian, Portuguese, French, Spanish, Simplified Chinese, Traditional Chinese, Russian, Czech, Greek, Polish, Swedish, Turkish and Korean.
Operation manual	English, German, Dutch, Italian, Portuguese, French, Spanish, Simplified Chinese, Traditional Chinese, Russian, Czech, Greek, Polish, Swedish, Turkish and Korean.
Software	English, German, Dutch, Italian, Portuguese, French, Spanish, Simplified Chinese, Traditional Chinese, Russian, Hungarian, Japanese, Czech, Danish, Finnish, Greek, Norwegian, Polish, Swedish, Thai, Turkish, Korean, Arabic, and Vietnamese

Hardware recommendations

Cameras

All Bosch cameras can be used under the device compatibility concept, which you can find on the Bosch Security and Safety Community in the following article:

[How-to: BVMS - Device compatibility](#)

BVMS is an ONVIF Profile S certified video management system.

Management Server, Video Streaming Gateway, Video Recording Manager, and Mobile Video Service

Item	Description
Operating System	Windows Server 2012 R2 (64-bit) Windows Server 2016 (64-bit) Windows 10 Professional (64-bit) build 1909 Windows 10 Professional (64-bit) build 2004

Item	Description
CPU	Windows 10 Enterprise (64-bit) 2019 LTSC build 1809
	Windows Server 2019 (64-bit)
RAM	Intel Xeon Silver 4110 (2.1 GHz, 8 cores)
Free disk space	16GB
Network	15GB (+ 15% of the hard-drive after installation)
	1 Gigabit/s network interface card

Operator Client

Item	Description
Operating System	Windows 10 Professional (64-bit) build 1909
	Windows 10 Professional (64-bit) build 2004
	Windows 10 Enterprise (64-bit) 2019 LTSC build 1809
CPU	Intel Xeon W-2123 (3.6 GHz)
RAM	8GB
Free disk space	Minimum 5GB for Single Site Systems Minimum 10GB for Enterprise Systems
Network	1 Gigabit/s network interface card
Display resolution	Minimum: 1280 x 1024 Maximum: 3840 x 2160
Graphic card	Nvidia Quadro P620
	Nvidia Quadro P2000
	Nvidia Quadro P4000
	Nvidia Quadro RTX4000
	Nvidia Quadro P2200 Intel HD Graphics 630

Network

To achieve the performance listed in the table below, a 1 Gigabit/s network is a minimum requirement between the Operator Client and Management Server.

Notice

When the system does not have enough network resources, or is experiencing a temporary decrease in network performance, the event response time and alarm visibility time may increase.

Notice

The list of communication channels and required network ports can be found in the BVMS Configuration manual.

(Unicast) Maximum number of workstations simultaneously viewing the same camera	5
(Multicast) Maximum number of workstations simultaneously viewing the same camera	100
Event response time (assuming sufficient network performance considering bandwidth and delay)	< 1 second
Alarm visibility time (assuming sufficient network performance considering bandwidth and delay), including 1 live image pane, 1 instant playback image page, and 1 map image pane.	< 2 seconds

Storage devices

The storage quick selection guide, which also includes non-Bosch storage devices, can be found on:

<http://www.boschsecurity.com/bvms>

Device	Series
Bosch DIVAR IP	2000, 3000, 5000, 6000, 7000
Bosch DIVAR IP AiO	5000, 7000
Bosch DSA E-Series	2300, 2400, 2500, 2600, 2700, 2800
Bosch DIVAR AN	3000, 5000
Bosch DIVAR network	2000, 3000, 5000
Bosch DIVAR hybrid	3000, 5000
Bosch DVR	700, 4xx, 6xx
Bosch DiBos	Firmware 8.7
Bosch Recording Station (BRS)	Firmware 8.10 / 8.11

Other hardware

Type	Device	Remarks
Decoder	Bosch VIDEOJET decoder 3000	n/a
Decoder	Bosch VIDEOJET decoder 7000	n/a
Decoder	Bosch VIDEOJET decoder 8000	Supports displaying of 4K cameras
Foyer card reader	MINITER 485	n/a
Serial input	Werner Electronic DTP3N	n/a
Intrusion panel	Bosch G-series B9512G 3.03.14,	Automation Device in the intrusion panels must be configured as Mode 2
	Bosch B5812G 3.03.14,	
	Bosch B5512 3.03.14,	
	Bosch B4512 3.03.14,	

Type	Device	Remarks
	Bosch B3512 3.03.14, Bosch B6512 3.03.14	
Intrusion panel	Bosch D9412GV4 2.03.018, Bosch D7412GV4 2.03.018	Microsoft Windows Patch 3155464 should not be installed
Monitor wall	Barco Transform N series	RCPPlus agent 0.9.5.0
Analog matrix switch	Bosch Allegiant Series	Firmware 8.75 or later, Master control software 2.94
ATM/POS Bridge	Bosch ATM/POS Bridge	Version 1.10.00.12
Keyboard	Bosch KBD-Universal XF	USB
Keyboard	Bosch Intuikey	Serial, firmware 1.96
Digital I/O	Advantech ADAM-6050, Advantech ADAM-6052, Advantech ADAM-6060, Advantech ADAM-6066	n/a
USB to serial	Belkin serial adapter F5U103VEA	n/a
Ethernet to serial	Control DeviceMaster RTS 4-port	n/a
LPR camera	Tattile Vega Basic Tattile Vega Smart Tattile Vega1	n/a

Ordering information

MBV-BPRO-101 License Professional base

Base license for Professional edition. 8 cameras, 5 workstations, 5 CCTV keyboards, 1 DVR, 1 intrusion panel, 8 failover recording channels, 8 dual recording channels and ATM/POS, allegiant and OPC functionality. Order number **MBV-BPRO-101 | F.01U.389.492**

MBV-BENT-101 License Enterprise base

Base license for Enterprise System. 8 camera/decoder expansions, 5 workstation expansions, 8 failover recording channels, 8 dual-recording channels, 5 keyboard expansion, 1 intrusion panel, 1 live and playback site, 2 subsystems, and ATM/ POS, allegiant and OPC functionality. Order number **MBV-BENT-101 | F.01U.389.506**

MBV-XCHAN-101 License Camera/decoder expansion

Expansion license for 1 encoder/decoder channel. Order the exact number required. Order number **MBV-XCHAN-101 | F.01U.389.494**

MBV-XDUR-101 License Camera dual recording expansion

Expansion license for 1 encoder channel used for dual recording. Order number **MBV-XDUR-101 | F.01U.389.495**

MBV-XDVR-101 License DVR expansion

Expansion license for 1 DVR. Order the exact number required. Order number **MBV-XDVR-101 | F.01U.389.493**

MBV-XFOV-101 License VRM Failover channel expansion

Expansion license for 1 encoder channel used with a Failover VRM. Order number **MBV-XFOV-101 | F.01U.389.496**

MBV-XINT-101 License Intrusion panel expansion

Expansion license to integrate intrusion panels. Order number **MBV-XINT-101 | F.01U.389.497**

MBV-XKBD-101 License Keyboard expansion

Expansion license for 1 CCTV keyboard. Order the exact number required. Order number **MBV-XKBD-101 | F.01U.389.498**

MBV-XLPR-101 License LPR camera expansion

Expansion license for 1 (Tattile) LPR camera. Order the exact number required. Order number **MBV-XLPR-101 | F.01U.389.503**

MBV-XMVS-101 License Mobile video service expansion

Expansion license for 1 Mobile Video Service. Order number **MBV-XMVS-101 | F.01U.389.504**

MBV-XPI-101 License Person ident. channel expansion

Expansion license for 1 Person Identification channel. Order the exact number required. Order number **MBV-XPI-101 | F.01U.389.500**

MBV-XSITE-101 License Site expansion

Expansion license for 1 site. Order the exact number required. Order number **MBV-XSITE-101 | F.01U.389.501**

MBV-XSUB-101 License Enterprise subsystem expansion

Expansion license for 1 subsystem. Order the exact number required. Order number **MBV-XSUB-101 | F.01U.389.502**

MBV-XWST-101 License Workstation expansion

Expansion license for 1 workstation (each extra workstation requires 1 license). Order number **MBV-XWST-101 | F.01U.389.499**

MBV-100WST-101 License Workstation expansion

Expansion license for 100 workstations. Order number **MBV-100WST-101 | F.01U.389.505**

Software Options

MBV-MPI License for MBV-XAV-*, 1yr

One year of maintenance cover for a BVMS person identification channel expansion license. Order number **MBV-MPI | F.01U.362.208**

MBV-M100WST License for MBV-100WST-*, 1yr

One year of maintenance cover for the Workstation expansion license. Order number **MBV-M100WST | F.01U.377.529**

MBV-MLPR License for MBV-XLPR-*, 1yr

1 year of maintenance cover for the (Tattile) LPR camera expansion license.

Order number **MBV-MLPR | F.01U.389.507**

MBV-MINT License for MBV-XINT-*, 1yr

One year of maintenance cover for an intrusion panel expansion license.

Order number **MBV-MINT | F.01U.308.888**

MBV-MSITE License for MBV-XSITE-*, 1yr

One year of maintenance cover for the site expansion license.

Order number **MBV-MSITE | F.01U.318.779**

MBV-MOPC License for MBV-FOPC-*, 1yr

One year of maintenance cover for the OPC Server Connection expansion license.

Order number **MBV-MOPC | F.01U.201.045**

MBV-MFOV License for MBV-XFOV-*, 1yr

One year of maintenance cover for a Failover VRM expansion license.

Order number **MBV-MFOV | F.01U.300.901**

MBV-MDUR License for MBV-XDUR-*, 1yr

One year of maintenance cover for a Dual Recording VRM expansion license.

Order number **MBV-MDUR | F.01U.300.902**

MBV-MPRO SMA license for MBV-BPRO, 1 year

One year of maintenance cover for the Professional Edition base license.

Order number **MBV-MPRO | F.01U.201.035**

MBV-MENT License for MBV-BENT-*, 1yr

One year of maintenance cover for the Enterprise Edition base license.

Order number **MBV-MENT | F.01U.273.759**

MBV-MCHAN License for MBV-XCHAN-*, 1yr

One year of maintenance cover for the channel expansion license.

Order number **MBV-MCHAN | F.01U.201.036**

MBV-MDVR License for MBV-XDVR-*, 1yr

One year of maintenance cover for the DVR expansion license.

Order number **MBV-MDVR | F.01U.201.038**

MBV-MWST License for MBV-XWST-*, 1yr

One year of maintenance cover for the Workstation expansion license.

Order number **MBV-MWST | F.01U.201.037**

MBV-MKBD License for MBV-XKBD-*, 1yr

One year of maintenance cover for the CCTV keyboard expansion license.

Order number **MBV-MKBD | F.01U.201.039**

MBV-MSUB License for MBV-XSUB-*, 1yr

One year of maintenance cover for an Enterprise Subsystem expansion license.

Order number **MBV-MSUB | F.01U.273.760**

MBV-MMVS License for MBV-XMVS-*, 1yr

One year of maintenance cover for the Mobile Video Service expansion license.

Order number **MBV-MMVS | F.01U.273.761**

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