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 web page: Bosch Building Technologies Community. 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.

BVMS Enterprise
Multiple BVMS Lite, Plus, Professional or DIVAR IP systems can be combined into one BVMS Enterprise System.
Software assurance
In addition to the Bosch Security Systems standard terms and conditions of sale, the Bosch Software Assurance is a great option to keep BVMS always up to date. With continuously changing platforms and version compatibility, regular updates are essential. With the Bosch Software Assurance, you can relax knowing you are always entitled to the latest software enhancements. It ensures full technical support and access to hotfixes. The Bosch Software Assurance is available in the product catalog.

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 Security and Safety Community

System limits

Notice
The system limits are based on the hardware recommendations.

<table>
<thead>
<tr>
<th>Maximum number of workstations</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum number of IP devices</td>
<td>2000 (of which up to 128 decoders)</td>
</tr>
<tr>
<td>Maximum number of live and playback sites</td>
<td>9999</td>
</tr>
<tr>
<td>Maximum number of stitching channels</td>
<td>100</td>
</tr>
<tr>
<td>Maximum number of intrusion panels</td>
<td>20 (512 detectors per panel) or 40 (256 detectors per panel)</td>
</tr>
<tr>
<td>Maximum number of DVRs</td>
<td>50</td>
</tr>
<tr>
<td>Maximum number of VRMs</td>
<td>128</td>
</tr>
<tr>
<td>Maximum number of sustained events (logbook) / sec</td>
<td>1000</td>
</tr>
<tr>
<td>Maximum number of sustained events (without logbook) / sec</td>
<td>2500</td>
</tr>
</tbody>
</table>

Maximum peak event load / sec (within 60 minutes) 5000
Maximum number of events / sec from ONVIF cameras 500
Logbook size 4GB

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

Languages

<table>
<thead>
<tr>
<th>Component</th>
<th>Languages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quick installation guide</td>
<td>English, French, German, Simplified Chinese and Spanish</td>
</tr>
<tr>
<td>Configuration manual</td>
<td>English, German, Dutch, Italian, Portuguese, French, Spanish, Simplified Chinese, Traditional Chinese, Russian, Czech, Greek, Polish, Swedish, Turkish and Korean.</td>
</tr>
<tr>
<td>Operation manual</td>
<td>English, German, Dutch, Italian, Portuguese, French, Spanish, Simplified Chinese, Traditional Chinese, Russian, Czech, Greek, Polish, Swedish, Turkish and Korean.</td>
</tr>
<tr>
<td>Software</td>
<td>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</td>
</tr>
</tbody>
</table>

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. The list of tested cameras can be found on the following website:

🌐 http://ipp.boschsecurity.com/bvms
### Management Server, Video Streaming Gateway, Video Recording Manager, and Mobile Video Service

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating System</td>
<td>Windows Server 2012 R2 (64-bit)</td>
</tr>
<tr>
<td></td>
<td>Windows Server 2016 (64-bit)</td>
</tr>
<tr>
<td></td>
<td>Windows 10 Professional (64-bit) November 2019 update (1909)</td>
</tr>
<tr>
<td></td>
<td>Windows 10 Professional (64-bit) May 2019 update (1903)</td>
</tr>
<tr>
<td></td>
<td>Windows 10 Enterprise (64-bit) 2019 LTSC build 1809</td>
</tr>
<tr>
<td>CPU</td>
<td>Intel Xeon Silver 4110 (2.1 GHz, 8 cores)</td>
</tr>
<tr>
<td>RAM</td>
<td>16GB</td>
</tr>
<tr>
<td>Free disk space</td>
<td>15GB (+ 15% of the hard-drive after installation)</td>
</tr>
<tr>
<td>Network</td>
<td>1 Gigabit/s network interface card</td>
</tr>
</tbody>
</table>

### Operator Client

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating System</td>
<td>Windows 10 Professional (64-bit) May 2019 update (1903)</td>
</tr>
<tr>
<td></td>
<td>Windows 10 Professional (64-bit) November 2019 update (1909)</td>
</tr>
<tr>
<td></td>
<td>Windows 10 Enterprise (64-bit) 2019 LTSC build 1809</td>
</tr>
<tr>
<td>CPU</td>
<td>Intel Core i7-8700 (3.2 GHz)</td>
</tr>
<tr>
<td>RAM</td>
<td>8GB</td>
</tr>
<tr>
<td>Free disk space</td>
<td>Minimum 5GB for Single Site Systems</td>
</tr>
<tr>
<td></td>
<td>Minimum 10GB for Enterprise Systems</td>
</tr>
<tr>
<td>Network</td>
<td>1 Gigabit/s network interface card</td>
</tr>
<tr>
<td>Display resolution</td>
<td>Minimum: 1280 x 1024 Maximum: 1920 x 1080</td>
</tr>
<tr>
<td>Graphic card</td>
<td>Nvidia Quadro P620</td>
</tr>
<tr>
<td></td>
<td>Nvidia Quadro P2000</td>
</tr>
<tr>
<td></td>
<td>Nvidia Quadro P4000</td>
</tr>
<tr>
<td></td>
<td>Nvidia Quadro RTX4000</td>
</tr>
<tr>
<td></td>
<td>Nvidia Quadro P2200</td>
</tr>
<tr>
<td></td>
<td>Intel HD Graphics 630</td>
</tr>
</tbody>
</table>

**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](http://www.boschsecurity.com/bvms)

<table>
<thead>
<tr>
<th>Device</th>
<th>Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bosch DIVAR IP</td>
<td>2000, 3000, 5000, 6000, 7000</td>
</tr>
<tr>
<td>Bosch DIVAR IP AiO</td>
<td>5000, 7000</td>
</tr>
<tr>
<td>Bosch DSA E-Series</td>
<td>2300, 2400, 2500, 2600, 2700, 2800</td>
</tr>
<tr>
<td>Bosch DIVAR AN</td>
<td>3000, 5000</td>
</tr>
<tr>
<td>Bosch DIVAR network</td>
<td>2000, 3000, 5000</td>
</tr>
<tr>
<td>Bosch DIVAR hybrid</td>
<td>3000, 5000</td>
</tr>
<tr>
<td>Bosch DVR</td>
<td>700, 4xx, 6xx</td>
</tr>
<tr>
<td>Bosch DiBos</td>
<td>Firmware 8.7</td>
</tr>
<tr>
<td>Bosch Recording Station (BRS)</td>
<td>Firmware 8.10 / 8.11</td>
</tr>
</tbody>
</table>
### Other hardware

<table>
<thead>
<tr>
<th>Type</th>
<th>Device Details</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decoder</td>
<td>Bosch VIDEOJET decoder 3000</td>
<td>n/a</td>
</tr>
<tr>
<td>Decoder</td>
<td>Bosch VIDEOJET decoder 7000</td>
<td>n/a</td>
</tr>
<tr>
<td>Decoder</td>
<td>Bosch VIDEOJET decoder 8000</td>
<td>Supports displaying of 4K cameras</td>
</tr>
<tr>
<td>Foyer card reader</td>
<td>MINITER 485</td>
<td>n/a</td>
</tr>
<tr>
<td>Serial input</td>
<td>Werner Electronic DTP3N</td>
<td>n/a</td>
</tr>
<tr>
<td>Intrusion panel</td>
<td>Bosch G-series B9512G 3.03.14, Bosch B5812G 3.03.14,</td>
<td>Automation Device in the intrusion panels</td>
</tr>
<tr>
<td></td>
<td>Bosch B5512G 3.03.14, Bosch B4512 3.03.14, Bosch B3512 3.03.14, Bosch B6512 3.03.14</td>
<td>must be configured as Mode 2</td>
</tr>
<tr>
<td></td>
<td>Bosch D9412GV4 2.03.018, Bosch D7412GV4 2.03.018</td>
<td>Microsoft Windows Patch 3155464 should not</td>
</tr>
<tr>
<td></td>
<td></td>
<td>be installed</td>
</tr>
<tr>
<td>Monitor wall</td>
<td>Barco Transform N series</td>
<td>RCPPlus agent 0.9.5.0</td>
</tr>
<tr>
<td>Analog matrix switch</td>
<td>Bosch Allegiant Series</td>
<td>Firmware 8.75 or later, Master control</td>
</tr>
<tr>
<td></td>
<td></td>
<td>software 2.94</td>
</tr>
<tr>
<td>ATM/POS Bridge</td>
<td>Bosch ATM/POS Bridge</td>
<td>Version 1.10.00.12</td>
</tr>
<tr>
<td>Keyboard</td>
<td>Bosch KBD-Universal XF</td>
<td>USB</td>
</tr>
<tr>
<td>Keyboard</td>
<td>Bosch Intuikey</td>
<td>Serial, firmware 1.96</td>
</tr>
<tr>
<td>Digital I/O</td>
<td>Advantech ADAM-6050, Advantech ADAM-6052, Advantech</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>ADAM-6060, Advantech ADAM-6066</td>
<td></td>
</tr>
<tr>
<td>USB to serial</td>
<td>Belkin serial adapter F5U103VEA</td>
<td>n/a</td>
</tr>
<tr>
<td>Ethernet to serial</td>
<td>Control DeviceMaster RTS 4-port</td>
<td>n/a</td>
</tr>
</tbody>
</table>

### Ordering information

- **MBV-XSTCH-100 License Stitching channel expansion**
  - Expansion license for 1 stitching camera.
  - Order number **MBV-XSTCH-100**

- **MBV-XAGR-100 License Augmented reality expansion**
  - Expansion license for 5 static augmented reality tags.
  - Order number **MBV-XAGR-100**

- **MBV-XPI-100 License Person ident. channel expansion**
  - Expansion license for 1 person identification channel.
  - Order the exact number required.
  - Order number **MBV-XPI-100**

- **MBV-BDEM-100 License Demo**
  - Demo license for 3 cameras, 2 workstations, 2 CCTV keyboards, 2 DVRs.
  - Order number **MBV-BDEM-100**

- **MBV-BENT-100 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-100**

- **MBV-BPRO-100 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-100**

- **MBV-FEUP-100 Upgrade Professional to Enterprise**
  - Upgrade license to expand a Professional Edition base license to an Enterprise System base license.
  - Order number **MBV-FEUP-100**

- **MBV-XCHAN-100 License Camera/decoder expansion**
  - Expansion license for 1 encoder/decoder channel.
  - Order the exact number required.
  - Order number **MBV-XCHAN-100**

- **MBV-XDUR-100 License Camera dual recording expansion**
  - Expansion license for 1 encoder channel used for dual recording.
  - Order number **MBV-XDUR-100**

- **MBV-XDVR-100 License DVR expansion**
  - Expansion license for 1 DVR. Order the exact number required.
  - Order number **MBV-XDVR-100**
MBV-XFOV-100 License VRM Failover channel expansion
Expansion license for 1 encoder channel used with a Failover VRM.
Order number MBV-XFOV-100

MBV-XINT-100 License Intrusion panel expansion
Expansion license to integrate intrusion panels.
Order number MBV-XINT-100

MBV-XKBD-100 License Keyboard expansion
Expansion license for 1 CCTV keyboard. Order the exact number required.
Order number MBV-XKBD-100

MBV-XMVS-100 License Mobile video service expansion
Expansion license for 1 Mobile Video Service.
Order number MBV-XMVS-100

MBV-XSITEM-100 License Site expansion
Expansion license for 1 site. Order the exact number required.
Order number MBV-XSITEM-100

MBV-XSUB-100 License Enterprise subsystem expansion
Expansion license for 1 subsystem. Order the exact number required.
Order number MBV-XSUB-100

MBV-XWST-100 License Workstation expansion
Expansion license for 1 workstation (each extra workstation requires 1 license).
Order number MBV-XWST-100

MBV-100WST-100 License Workstation expansion
Expansion license for 100 workstations.
Order number MBV-100WST-100

Software Options

MBV-MPRO License for MBV-BPRO-*, 1yr
One year of maintenance cover for the Professional Edition base license.
Order number MBV-MPRO

MBV-MPRO-3YR License for MBV-BPRO-*, 3yr
Three years of maintenance cover for the Professional Edition base license.
Order number MBV-MPRO-3YR

MBV-MCHAN License for MBV-XCHAN-*, 1yr
One year of maintenance cover for the channel expansion license.
Order number MBV-MCHAN

MBV-MCHAN-3YR License for MBV-XCHAN-*, 3yr
Three years of maintenance cover for the channel expansion license.
Order number MBV-MCHAN-3YR

MBV-MWST License for MBV-XWST-*, 1yr
One year of maintenance cover for the Workstation expansion license.
Order number MBV-MWST

MBV-MWST-3YR License for MBV-XWST-*, 3yr
Three years of maintenance cover for the Workstation expansion license.
Order number MBV-MWST-3YR

MBV-MDVR License for MBV-XDVR-*, 1yr
One year of maintenance cover for the DVR expansion license.
Order number MBV-MDVR

MBV-MDVR-3YR License for MBV-XDVR-*, 3yr
Three years of maintenance cover for the DVR expansion license.
Order number MBV-MDVR-3YR

MBV-MKBD License for MBV-XKBD-*, 1yr
One year of maintenance cover for the CCTV keyboard expansion license.
Order number MBV-MKBD

MBV-MKBD-3YR License for MBV-XKBD-*, 3yr
Three years of maintenance cover for the CCTV keyboard expansion license.
Order number MBV-MKBD-3YR

MBV-MMVS License for MBV-XMVS-*, 1yr
One year of maintenance cover for the Mobile Video Service expansion license.
Order number MBV-MMVS

MBV-MMVS-3YR License for MBV-XMVS-*, 3yr
Three years of maintenance cover for the Mobile Video Service expansion license.
Order number MBV-MMVS-3YR

MBV-MALG License for MBV-XALG-*, 1yr
One year of maintenance cover for an Allegiant Matrix expansion license.
Order number MBV-MALG

MBV-MALG-3YR License for MBV-XALG-*, 3yr
Three years of maintenance cover for an Allegiant Matrix expansion license.
Order number MBV-MALG-3YR

MBV-MATM License for MBV-XATM-*, 1yr
One year of maintenance cover for an ATM/POS expansion license.
Order number MBV-MATM

MBV-MATM-3YR License for MBV-XATM-*, 3yr
Three years of maintenance cover for an ATM/POS expansion license.
Order number MBV-MATM-3YR

MBV-MOPC License for MBV-FOPC-*, 1yr
One year of maintenance cover for the OPC Server Connection expansion license.
Order number MBV-MOPC
MBV-MOPC-3YR License for MBV-FOPC-* , 3yr
Three years of maintenance cover for the OPC Server
Connection expansion license.
Order number MBV-MOPC-3YR

MBV-MENT License for MBV-BENT-* , 1yr
One year of maintenance cover for the Enterprise
Edition base license.
Order number MBV-MENT

MBV-MENT-3YR License for MBV-BENT-* , 3yr
Three years of maintenance cover for the Enterprise
Edition base license.
Order number MBV-MENT-3YR

MBV-MSUB License for MBV-XSUB-* , 1yr
One year of maintenance cover for an Enterprise
Subsystem expansion license.
Order number MBV-MSUB

MBV-MSUB-3YR License for MBV-XSUB-* , 3yr
Three years of maintenance cover for a Subsystem
expansion license.
Order number MBV-MSUB-3YR

MBV-MEUP License for MBV-FEUP-* , 1yr
One year of maintenance cover for the upgrade license
from Pro to Enterprise.
Order number MBV-MEUP

MBV-MEUP-3YR License for MBV-FEUP-* , 3yr
Three years of maintenance cover for the upgrade
license from Pro to Enterprise.
Order number MBV-MEUP-3YR

MBV-MINT License for MBV-XINT-* , 1yr
One year of maintenance cover for an intrusion panel
expansion license.
Order number MBV-MINT

MBV-MINT-3YR License for MBV-XINT-* , 3yr
Three years of maintenance cover for an intrusion
panel expansion license.
Order number MBV-MINT-3YR

MBV-MSITE License for MBV-XSITE-* , 1yr
One year of maintenance cover for the site expansion
license.
Order number MBV-MSITE

MBV-MSITE-3YR License for MBV-XSITE-* , 3yr
Three years of maintenance cover for the site expansion-license.
Order number MBV-MSITE-3YR

MBV-MFOV License for MBV-XFOV-* , 1yr
One year of maintenance cover for a Failover VRM
expansion license.
Order number MBV-MFOV

MBV-MFOV-3YR License for MBV-XFOV-* , 3yr
Three years of maintenance cover for a Failover VRM
expansion license.
Order number MBV-MFOV-3YR

MBV-MDUR License for MBV-XDUR-* , 1yr
One year of maintenance cover for a Dual Recording
VRM expansion license.
Order number MBV-MDUR

MBV-MDUR-3YR License for MBV-XDUR-* , 3yr
Three years of maintenance cover for a Dual Recording
VRM expansion license.
Order number MBV-MDUR-3YR

MBV-MPI License for MBV-XAV-* , 1yr
One year of maintenance cover for a BVMS person
identification channel expansion license.
Order number MBV-MPI

MBV-MPI-3YR License for MBV-XAV-* , 3yr
Three years of maintenance cover for a BVMS person
identification channel expansion license.
Order number MBV-MPI-3YR

MBV-M100WST License for MBV-100WST-* , 1yr
One year of maintenance cover for the Workstation
expansion license.
Order number MBV-M100WST

MBV-M100WST-3YR License for MBV-100WST-* , 3yr
Three years of maintenance cover for the Workstation
expansion license.
Order number MBV-M100WST-3YR