BVMS Plus 11.0

BVMS Plus 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 software is provided as an e-license via e-mail.

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.

<table>
<thead>
<tr>
<th>Cameras within system context</th>
<th>200000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cameras per operator</td>
<td>10000</td>
</tr>
<tr>
<td>Sub-systems</td>
<td>Between 10 sub-systems with 1000 cameras per system or 100 sub-systems with 100 cameras per system.</td>
</tr>
</tbody>
</table>

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 webpage: Bosch Building Technologies Knowledge Base

### System limits

#### Notice

The system limits are based on the hardware recommendations.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum number of workstations</td>
<td>10</td>
</tr>
<tr>
<td>Maximum number of cameras</td>
<td>256</td>
</tr>
<tr>
<td>Maximum number of live and playback sites</td>
<td>10</td>
</tr>
<tr>
<td>Maximum number of intrusion panels</td>
<td>10</td>
</tr>
<tr>
<td>Maximum number of DVRs</td>
<td>10</td>
</tr>
<tr>
<td>Maximum number of VRMs</td>
<td>2</td>
</tr>
<tr>
<td>Maximum number of sustained events (logbook) / sec</td>
<td>500</td>
</tr>
<tr>
<td>Maximum number of sustained events (without logbook) / sec</td>
<td>2500</td>
</tr>
<tr>
<td>Maximum peak event load / sec (within 60 minutes)</td>
<td>5000</td>
</tr>
<tr>
<td>Maximum number of events / sec from ONVIF cameras</td>
<td>500</td>
</tr>
<tr>
<td>Logbook size</td>
<td>4GB</td>
</tr>
</tbody>
</table>

#### 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>
</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.

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

It is recommended to run the Video Recording Manager and the BVMS Management Server on the same computer.

The recommended specifications for BVMS Plus are based on the Bosch DIVAR IP AiO 7000.

<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 Server 2019 (64-bit)</td>
</tr>
<tr>
<td></td>
<td>Windows 10 Professional (64-bit) build 20H2</td>
</tr>
<tr>
<td></td>
<td>Windows 10 Professional (64-bit) build 2004</td>
</tr>
<tr>
<td></td>
<td>Windows 10 Enterprise (64-bit) 2019 LTSC build 1809</td>
</tr>
</tbody>
</table>

| CPU            | Intel Xeon E3-1275 V3 (3.5 GHz,4-core) |
### Item | Description
--- | ---
RAM | 8GB
Free disk space | 15GB (+ 15% of the hard-drive after installation)
Network | 1 Gigabit/s network interface card

### 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) build 20H2</td>
</tr>
<tr>
<td>Operating System</td>
<td>Windows 10 Professional (64-bit) build 2004</td>
</tr>
<tr>
<td>Operating System</td>
<td>Windows 10 Enterprise (64-bit) 2019 LTSC build 1809</td>
</tr>
<tr>
<td>CPU</td>
<td>Intel Xeon W-2123 (3.6 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>Free disk space</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</td>
</tr>
<tr>
<td>Display resolution</td>
<td>Maximum: 3840 x 2160</td>
</tr>
<tr>
<td>Graphic card</td>
<td>Nvidia Quadro P620</td>
</tr>
<tr>
<td>Graphic card</td>
<td>Nvidia Quadro P2000</td>
</tr>
<tr>
<td>Graphic card</td>
<td>Nvidia Quadro P4000</td>
</tr>
<tr>
<td>Graphic card</td>
<td>Nvidia Quadro RTX4000</td>
</tr>
<tr>
<td>Graphic card</td>
<td>Nvidia Quadro P2200</td>
</tr>
<tr>
<td>Graphic card</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.

- **(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

### 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.

### 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)

### Other hardware

<table>
<thead>
<tr>
<th>Type</th>
<th>Device</th>
<th>Series</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decoder</td>
<td>Bosch VIDEOJET decoder 3000</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Decoder</td>
<td>Bosch VIDEOJET decoder 7000</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Decoder</td>
<td>Bosch VIDEOJET decoder 8000</td>
<td>Supports displaying of 4K cameras</td>
<td></td>
</tr>
<tr>
<td>Decoder</td>
<td>Bosch VIDEOJET decoder 7513</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Foyer card reader</td>
<td>MINITER 485</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Serial input</td>
<td>Werner Electronic DTP3N</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Intrusion panel</td>
<td>Bosch G-series B9512G 3.03.14, Bosch B5812G 3.03.14, Bosch B5512 3.03.14, Bosch B4512 3.03.14, Bosch B3512 3.03.14, Bosch B6512 3.03.14</td>
<td>Automation Device in the intrusion panels must be configured as Mode 2</td>
<td></td>
</tr>
<tr>
<td>Intrusion panel</td>
<td>Bosch D9412GV4 2.03.018</td>
<td>Microsoft Windows Patch 3155464 should not be installed</td>
<td></td>
</tr>
</tbody>
</table>
### Software Options

**MBV-BPLU License Plus base**
Includes 8 camera/decoder expansions, 5 workstation expansions, 8 failover recording channels, 8 dual-recording channels, 5 keyboard expansions, 1 DVR, 1 intrusion panel, 1 live and playback site, and ATM/POS, allegiant and OPC functionality.
Order number MBV-BPLU | F.01U.393.650

**MBV-XCHANPLU License Camera/decoder expansion**
Expansion license for 1 encoder/decoder channel. Order the exact number required.
Order number MBV-XCHANPLU | F.01U.393.681

**MBV-XWSTPLU License Workstation expansion**
Expansion license for 1 workstation (each extra workstation requires 1 license).
Order number MBV-XWSTPLU | F.01U.393.682

**MBV-FMAPPLU License Online map functionality**
Expansion license for online map functionality.
Order number MBV-FMAPPLU | F.01U.395.079

**MBV-FOBJPLU License Map-based tracking assistant**
Expansion license for Map-based tracking assistant.
Order number MBV-FOBJPLU | F.01U.393.652

**MBV-XDURPLU License Camera dual recording expansion**
Expansion license for 1 encoder channel used for dual recording.
Order number MBV-XDURPLU | F.01U.393.687

**MBV-XDVRPLU License DVR expansion**
Expansion license for 1 DVR. Order the exact number required.
Order number MBV-XDVRPLU | F.01U.393.683

**MBV-XFOVPLU License VRM Failover channel expansion**
Expansion license for 1 encoder channel used with a Failover VRM.
Order number MBV-XFOVPLU | F.01U.393.686

**MBV-XINTPLU License Intrusion panel expansion**
Expansion license to integrate intrusion panels.
Order number MBV-XINTPLU | F.01U.393.689

**MBV-XKBDPLU License Keyboard expansion**
Expansion license for 1 CCTV keyboard. Order the exact number required.
Order number MBV-XKBDPLU | F.01U.393.684

**MBV-XLPRPLU License LPR camera expansion**
Expansion license for 1 (Tattile) LPR camera. Order the exact number required.
Order number MBV-XLPRPLU | F.01U.393.691

**MBV-XMVSPLU License Mobile video service expansion**
Expansion license for 1 Mobile Video Service.
Order number MBV-XMVSPLU | F.01U.393.685

**MBV-XPIPLU License Person ident. channel expansion**
Expansion license for 1 Person Identification channel.
Order the exact number required.
Order number MBV-XPIPLU | F.01U.393.690

**MBV-XSITEPLU License Unmanaged site expansion**
Expansion license for 1 site. Order the exact number required.
Order number MBV-XSITEPLU | F.01U.393.688

**MBV-XSUBPLU License Subsystem expansion**
Expansion license for 1 subsystem. Order the exact number required.
Order number MBV-XSUBPLU | F.01U.393.692

**MBV-MPLU SMA license for MBV-BPLU, 1 year**
1 year of maintenance cover for the Plus Edition base license.
Order number MBV-MPLU | F.01U.330.513

**MBV-MCHANPLU SMA license for MBV-XCHANPLU, 1 year**
1 year of maintenance cover for the Plus Edition camera/decoder expansion license.
Order number MBV-MCHANPLU | F.01U.330.514

**MBV-MWSTPLU SMA license for MBV-XWSTPLU, 1 year**
1 year of maintenance cover for the Plus Edition workstation expansion license.
Order number MBV-MWSTPLU | F.01U.330.515

**MBV-MOBJPLU SMA license for MBV-MOBJPLU, 1 year**
One year of maintenance cover for the Map-based tracking assistant license.
Order number MBV-MOBJPLU | F.01U.393.694
MBV-MMAPPLU SMA license for MBV-MMAPPLU, 1 year
One year of maintenance cover for an online map functionality license.
Order number MBV-MMAPPLU | F.01U.395.082

MBV-MPLU-DIP SMA license for MBV-BPLU-DIP, 1 year
One year of maintenance cover for the BVMS Plus license for DIVAR IP all-in-one 6000 and DIVAR IP all-in-one 7000.
Order number MBV-MPLU-DIP | F.01U.389.513

MBV-MDVRPLU SMA license for MBV-XDVRPLU, 1 year
1 year of maintenance cover for the Plus Edition DVR expansion license.
Order number MBV-MDVRPLU | F.01U.330.517

MBV-MKBDPLU SMA license for MBV-XKBDPLU, 1 year
1 year of maintenance cover for the Plus Edition keyboard expansion license.
Order number MBV-MKBDPLU | F.01U.330.518

MBV-MMVSPLU SMA license for MBV-XMVSPLU, 1 year
1 year of maintenance cover for the Plus Edition Mobile Video Service expansion license.
Order number MBV-MMVSPLU | F.01U.330.519

MBV-MFOVPLU SMA license for MBV-XFOVPLU, 1 year
1 year of maintenance cover for the Plus Edition Failover VRM expansion license.
Order number MBV-MFOVPLU | F.01U.330.520

MBV-MDURPLU SMA license for MBV-XDURPLU, 1 year
1 year of maintenance cover for the Plus Edition Dual Recording VRM expansion license.
Order number MBV-MDURPLU | F.01U.330.521

MBV-MINTPLU SMA license for MBV-XINTPLU, 1 year
One year of maintenance cover for the BVMS Plus Intrusion panel expansion license.
Order number MBV-MINTPLU | F.01U.330.522

MBV-MPIPLU SMA license for MBV-XPIPLU, 1 year
One year of maintenance cover for a BVMS Plus person identification channel expansion license.
Order number MBV-MPIPLU | F.01U.362.210

MBV-MSITEPLU SMA license for MBV-XSITEPLU, 1 year
One year of maintenance cover for the site expansion license.
Order number MBV-MSITEPLU | F.01U.381.964

MBV-MSUBPLU SMA license for MBV-XSUBPLU, 1 year
One year of maintenance cover for an Enterprise Subsystem expansion license.
Order number MBV-MSUBPLU | F.01U.389.490

MBV-MLPRPLU SMA license for MBV-XLPRPLU, 1 year
1 year of maintenance cover for the (Tattile) LPR camera expansion license.
Order number MBV-MLPRPLU | F.01U.389.491